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Marketing Communications Research Centre

THE GROWTH AND DECLINE OF RESPONSE TO
ADVERTISEMENTS - A LOOK AT THE IMPORTANCE OF
THRESHOLDS AND WEAROUT

Part one of a three part study

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C O N T E N T S

	Page
I Executive Summary	1
II Introduction	2
III Definitions and Terminology	4
IV Problems of Definition	7
i) The Distinction between Wearout and Forgetting	
ii) What is it that wears in and wears out?	
iii) The Need to Specify the Time Dimension	
iv) The Need to Specify the Measure of Response	
V The Value of the Stimulus-Response Ideology	14
i) The Problem of Aggregation	
ii) The Case of Direct Response Advertising	
iii) Assumptions underlying the Stimulus-Response Approach	
VI The Importance of Regulators of Response in Establishing Threshold and Wearout	20
i) Characteristics of the Advertising	
ii) Characteristics of the Product or Brand	
iii) Characteristics of the Advertising Schedule	
iv) Characteristics of the Media	
v) Competition and Timing	
VII Summary and Conclusions	31
Bibliography	34

I EXECUTIVE SUMMARY

This paper attempts to introduce and define the concepts of threshold and wearout and to review the existing state of knowledge surrounding these topics.

The problem is first introduced in Section II, not explicitly in terms of threshold and wearout, but in terms of how these phenomena affect the decision of how many times a campaign or advertising theme should be run.

In Section III formal definitions of these terms, such as they exist, are provided and discussed within the context of the stimulus-response approach. It is suggested that the conception of how advertising works significantly determines the way in which thresholds and wearout are defined and assumed to operate. As such, problems of definition are discussed in Section IV together with the need to specify advertising in a time dimension and the need to specify the measure of response.

The value of the stimulus-response ideology is brought into question in Section V and an alternative conception, illustrated for the case of direct response advertising, is proposed. This alternative is based on the need to consider the role of interest or involvement in the advertising when seeking to interpret different forms of response within the context of thresholds and wearout.

This viewpoint is further developed in Section VI with reference to the available work on the effects of advertising repetition. Characteristics of the advertising appeal and format, the product or brand, the media and the schedule are discussed in terms of how they influence the level of response. A number of valuable insights are gained from extending these findings to derive implications for thresholds and wearout.

Finally, Section VII provides an interim summary and conclusions.

This report represents the first in a three part study. A questionnaire is being circulated to many advertising decision makers from which further information and observations on thresholds and wearout can be established. The results of this exercise will be published in part two of this report. A final report will summarise the study's overall findings and spell out what precautions can be taken to avoid high thresholds and low wearout in advertising and how these can be detected.

II INTRODUCTION

The major question which underlies any discussion of thresholds and wear-out is embarrassingly simple and like so many other simple questions, particularly in the area of advertising, it has a frightfully complex answer. In its most frequently heard form, the question is, 'How many times should an advertisement be run?' Although far from satisfactory, a simple answer would be to quote from James Howell who in 1659 said, 'too much spoiles, too little doth not satisfie'. In other words, an advertisement should be run enough times so that it 'satisfies', but not so many times that it 'spoiles'. The point at which the advertisement 'satisfies' may be described as a threshold and the point at which the advertisement 'spoiles' may be called wearout.

By answering the question of how many times an advertisement should be run, in this way, there is no mention of the optimum number of times it should be run. Instead, the points of threshold and wearout may be taken to represent the lower and upper limits of advertising effectiveness.

Two points, in relation to the statement of the problem, are worthy of note at this introductory stage.

The first point concerns the time element. It is meaningless to talk in terms of how many times an advertisement should be run unless this is specified in a time dimension. This means that the rate at which advertisements are run, or the period of time elapsing between successive repetitions of the advertisements, must be included either when specifying the question or when specifying the answer.

The second point refers to the realities of the advertising environment. It is unrealistic and therefore inappropriate to talk about the number of times a single advertisement should be run. Advertisements are rarely created and run as isolated entities. More frequently they comprise groups or sets which, according to their timing and whether they employ a common theme, constitute a campaign. In view of this and the fact that a 'change' of campaign often refers to a change of theme, the question for consideration can be modified accordingly. A more acceptable way of stating the question, therefore, might be 'How many times should advertisements,

employing the same campaign theme, be run?' This leads more easily into the related question facing agencies and clients of whether a previous campaign theme should be retained or replaced in order to achieve current advertising objectives.

The problems in answering or attempting to answer such questions form the basis of this report.

III DEFINITIONS AND TERMINOLOGY

The simplest way to review thresholds and wearout is in terms of advertising response. Clearly, the way in which advertising is thought to achieve a response will influence, to a large extent, what is meant by the terms threshold and wearout.

One way in which advertising is thought to work is exemplified by a group of models known as stimulus-response models. These assume that as a result of repeated exposures to the stimulus an individual will be led to respond.

The term 'threshold' is capable of many interpretations but, within the stimulus-response framework of how advertising achieves effects, it has essentially only one interpretation. It is taken to be that level of advertising which precipitates an initial response, defined in some way, on the part of an individual or group of individuals. It is assumed that below this level advertising has virtually no effect.

Many other interpretations of thresholds stem directly or indirectly from this conception. For example, an advertiser may believe there is a threshold in terms of the size of the advertising budget: that is, he may not feel it is worth entering a particular form of media if the size of the media budget is less than a certain value. By doing so, the advertiser is making an implicit assumption that the corresponding number of advertising units (e.g. TVR, OTS etc.) which can be purchased for the available amount of money will not be sufficient to get over the threshold and produce the desired response or level of response. Similarly, a media planner or client who specifies a minimum number of four opportunities-to-see per week is implicitly suggesting that below this level advertising will have little or no effect.

The term 'wearout' is capable of fewer interpretations. Again, it may be viewed in the context of the stimulus-response models. It is taken to be that level of advertising which corresponds to the point at which an individual, or group of individuals, fails to respond to the advertising stimulus. Beyond this point, the likelihood that the individual, or group of individuals, will fail to respond increases despite continued repetition of the stimulus. When a failure to respond occurs, the point of wearout is taken to have been reached.

In this context, the points at which the threshold is passed and wearout is reached have been specified in terms of the corresponding level of advertising. This level of advertising consists of the number of repetitions of the advertising theme specified in a time dimension. It is a general term which describes not only the act of repeating the advertising but also what happens to the effects of this act over the period of time which elapses between successive repetitions. The concept of wearout refers to the former and not the latter activity. This point will be discussed at length when the distinction between wearout and forgetting is made.

Very few formal definitions of threshold and wearout exist. The first of these derives from Ackoff and Emshoff. (1)

"A small amount of advertising has virtually no effect on sales but as the amount is increased it pushes the response through a threshold after which it produces an increasing effect. This effect decreases and flattens out once the respondents are saturated; that is, they either turn off further exposure to the stimulus or are consuming up to their capabilities or capacities. Response to further increases in advertising remains relatively unchanged until the respondents reach supersaturation, a point beyond which they respond negatively."

The second definition deals more centrally with the wearout concept and is to be found in Grass and Wallace (2).

"The wearout hypothesis states that when a viewer is repeatedly exposed to a television commercial, attention increases (generation) to some maximum value (satiation point) after which it declines to some equilibrium level which is a function of the frequency or rate of exposure. Concurrent with an increase in attention, there occurs an increase in cumulative learning of the information available in the commercial as well as an increase in the attitude levels. At the onset of satiation in attention, however, the decay process (forgetting) begins and the cumulative level declines with declining attention until it too reaches some equilibrium value that corresponds to the equilibrium attention value."

These definitions may be interpreted in the context of a response function which is shown in a general form below. (Figure 1.)

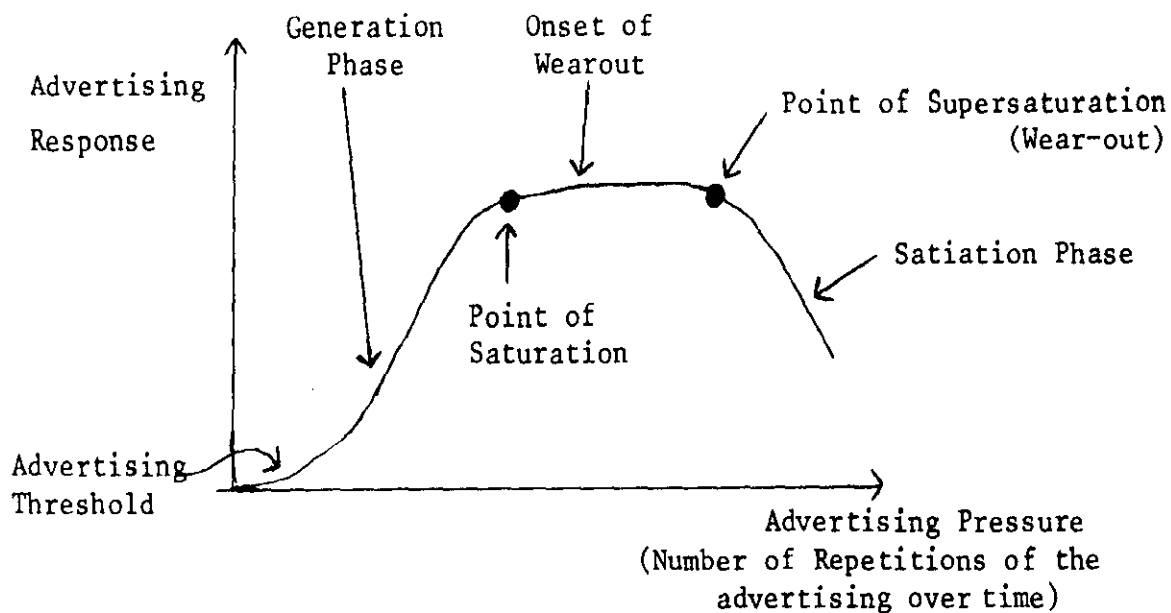


Figure 1. A Typical Response Function showing the Points of Threshold and Wearout.

Having introduced the phenomena of thresholds and wearout within the context of the stimulus-response models, it is worth retaining this conception a little longer in order to more easily illustrate some problems of definition and terminology.

IV PROBLEMS OF DEFINITION

i) The Distinction between Wearout and forgetting.

Thresholds and wearout are dynamic entities. They represent special cases of the general relationship between advertising pressure and advertising response. The cases of threshold and wearout, as defined above, merely describe what happens in terms of response when the advertising pressure reaches certain critical levels. Unfortunately, many factors, notably forgetting, affect this level of advertising pressure and the way in which it fluctuates over time. It is therefore important to distinguish between these phenomena.

Advertising consists of a flow of messages depicted or represented in some form which are directed at or encountered by individuals. In advertising terms, pressure is caused by repetition of the advertising and may be seen as some function of the number of repeats or reminders of the advertising which the individual has encountered. The wearout element of advertising pressure suggests that, as the number of repetitions increases, there will be a tendency for each reminder to lessen in effectiveness. Wearout, therefore, can only occur at discrete points in time when repetition of the advertising occurs. In addition, it occurs over time but only because advertising is distributed over time. It remains a function of the number of times the advertising has been repeated and registered in the past. Wearout is therefore not a function of time.

Conversely, forgetting occurs during the time intervals which elapse between repetitions of the advertising. How quickly the advertising is forgotten depends in part on the number of times that repetition of the advertising has been registered and also on the period of time which has elapsed since the advertising was last repeated.

The distinction between wearout and forgetting may also be illustrated diagrammatically within the stimulus-response conception of how advertising works. (Figure 2).

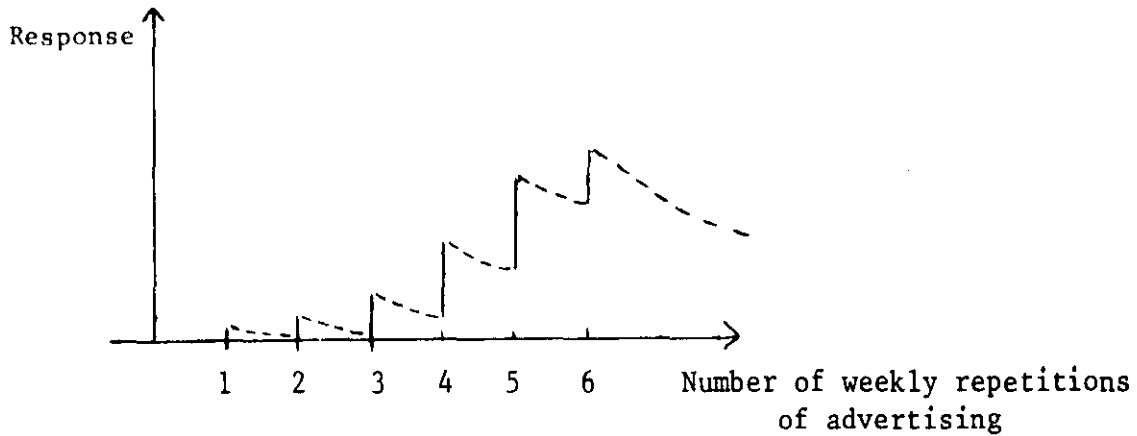


Figure 2. The Distinction between Wearout and Forgetting

In the diagram, the solid vertical portions describe the effect of repeating the advertising on response. Initially, the height of these vertical portions is small. After the third week a threshold is passed. Beyond this point, further repetitions increase in effectiveness until in the sixth week the advertising begins to wearout and the height of the solid, vertical portion decreases.

Forgetting, in the diagram, is shown by the dashed curves which describe the way in which the effects of repetition decay due to the passage of time. The slope of the decay curves may be steep initially but may become more gradual as the advertising is repeated. Irrespective of the slope of the decay curve, forgetting can only occur in the weeks intervening between repetition.

These two concepts are highly interrelated. If, for example, in the period of time which elapsed between successive repetitions, the advertising was completely forgotten then the advertising would never wear out since each repetition would effectively represent a first encounter. Conversely, if the advertising was completely remembered after a single repetition then the advertising must wear out once all the members of the population have encountered it. (This point will be discussed in greater detail when the validity of the stimulus-response models is called into question.)

In general, it is quite clear that, as the advertising is repeated, the likelihood that it will be forgotten will decrease while the likelihood that it will wear out will increase.

Unfortunately, this observation is not only rather obvious but also a little naive. It may be quite true to say that advertising which is rapidly forgotten is less susceptible to wearout but it is less true to say that advertising which is remembered is more susceptible to wear out. Although from an advertiser's point of view forgetting of the advertising and wearout of the advertising are undesirable consequences, it is unlikely that an advertiser would prefer to have the advertising forgotten in order to avoid wearout than to have the advertising remembered and encounter wearout.

Before such statements can be made, even tentatively, about the way in which wearout and forgetting operate and interact, it will be necessary to go beyond the rather narrow perspective of the stimulus-response models in order to achieve a fuller understanding. But, before this can be carried out, one or two additional problems of definition remain.

ii) What is it that wears in and wears out?

So far it has been suggested that it is the response to advertising which wears in once the threshold is reached, and which eventually then wears out. But an alternative to this would be to suggest that it is the advertising itself which wears in and wears out. Many writers propose that advertisements characteristically possess life cycles wherein there is a climb to maximum effectiveness followed by eventual decay. Indeed, it has been suggested (Weilbacher (3)) that wearout exists when advertising loses its 'sharp, cutting edge.' In this context, it might be argued that there is some intrinsic property of the advertising itself which accounts for initial response and eventual decay or, in our earlier terms, generation and satiation.

If this is the case then the response function could be viewed as merely a life cycle curve. In this sense, the threshold may be taken to be the point at which the advertising is 'born' and wear out as the point at which the advertising 'dies'.

This viewpoint has a certain conceptual appeal but otherwise it has little to offer. Not only does it afford less research potential but, from a methodological viewpoint, it is impossible to infer the stage of an advertisement on the life cycle curve unless this is based on measures of

response. Therefore, it is suggested that it is only sensible to talk in terms of a response which wears in and wears out. Advertisements can only be said to have worn out if the consumer's reaction to them has worn out. This does not prevent the study of the intrinsic qualities of advertising which may affect the duration of its life. For example, the question of why certain types of advertising, or certain themes, are less susceptible to wearout becomes, 'why are consumers more likely to continue to respond favourably to certain types of advertising, or certain themes, vis-a-vis others?'

The point is that once it is accepted that it is the response which wears in and wears out, some consideration must be given to factors such as interest and attention which may govern or regulate response. The importance of such factors is discussed in section VI.

iii) The Need to Specify the Time Dimension.

Response to advertisements and campaigns is sometimes said to reach a threshold or wearout 'quickly' or 'slowly'. Such terms are completely meaningless in the absence of further information. One campaign can only be said to wear out more quickly or more slowly than another if the timing of the two campaigns is identical.

For example, a campaign which encounters wearout after the tenth advertisement cannot be said to have worn out quickly or slowly unless it is known whether advertisements were delivered at daily, weekly or monthly intervals.

Ideally, three elements must be specified. These are,

- the number of advertisements to be repeated
- the rate at which advertisements are repeated
- the duration of the period of advertising or the campaign

If such detail is available, only then is it sensible to employ the terms 'quickly' and 'slowly' when talking about the points at which thresholds and wearout occur. Only then is it sensible to compare campaigns in terms of the factors which may have contributed to determine the points of threshold and wearout.

iv) The Need to Specify the Measure of Response.

Advertising often has short and long term objectives. A campaign may be designed to increase brand awareness, communicate a new copy claim, produce a favourable attitude shift and ultimately increase sales both immediately and in the long term.

Some mention has already been made of the need to specify advertising in a time dimension. It is equally important to specify the measure of response since some advertising objectives may be realised more 'quickly' than others. In other words, the number of repetitions of the advertising which correspond to the achievement of the desired response will vary according to the nature of the response.

For example, the number of repetitions of the advertising which are required to get over an awareness threshold may, depending on the level of 'noise' in the advertising channel, be relatively low. As such, a response function, employing recall as the measure of response, may be expected to show an initial steep rise beyond which an awareness plateau is reached. Conversely, other responses may be more difficult to achieve but may be more durable. For example, the number of repetitions which are required to get over the attitude threshold (i.e. to produce a favourable attitude shift) may be relatively high. As such, the corresponding response function may show only a very gradual rise with the curve only ever reaching a plateau phase in the long term.

Not only does the measure of response itself affect the level of advertising which corresponds to the threshold and wearout of response but it also affects the interpretation and meaning of these concepts. For example, in the case of advertising awareness, wearout, as defined in terms of diminishing awareness, may not occur and therefore the response curve may not enter a declining portion. Conversely, a measure of response which is more closely related to the persuasive element of advertising, such as brand preference, may be more likely to exhibit the typical generation and decay phases.

Evidence to support these general observations can be found in a study carried out by Ray, Sawyer and Strong (4). The diagram showing the various

shapes of the curves, according to the measures of response employed, is reproduced below. (Figure 3.)

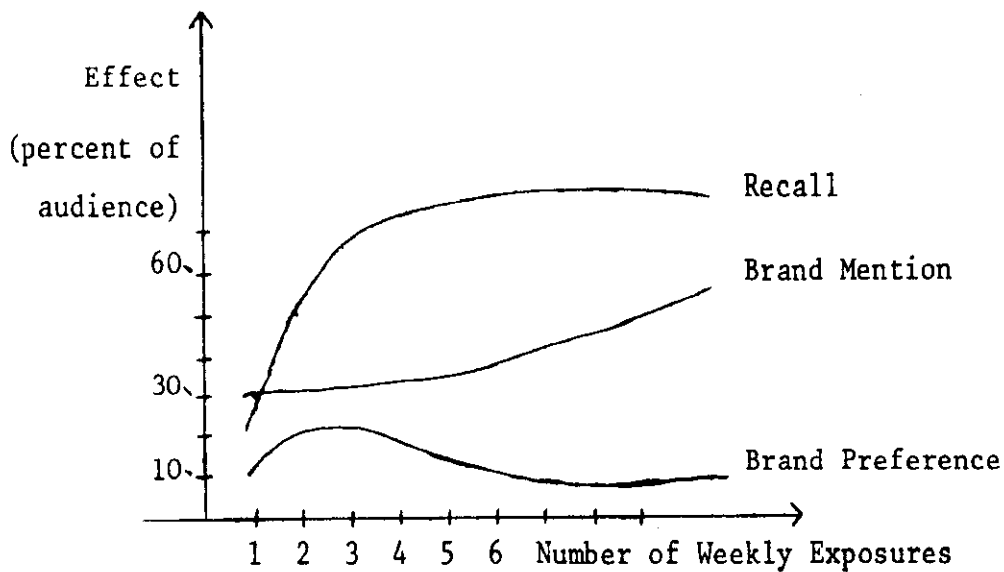


Figure 3. Diagram showing the way in which the measure of Response affects the shape of the Response Function.
(adapted from Ray, Sawyer and Strong)

Thus the shape of the response curve, and hence the points of threshold and wearout, will vary according to the nature of the desired response to be measured because some responses are 'easier' to achieve, i.e. require fewer advertising repetitions, than others. In addition, the nature of the response will influence the interpretation of the terms threshold and wearout and the likelihood of their occurrence. For example, awareness of advertising for one product or brand does not necessarily result in a loss of awareness for other products or brands. But, clearly, a preference for a recently advertised product or brand must result in a loss or decline in preference for the other products or brands.

Quite simply, not only will the choice of response and the corresponding measure affect the ease with which it may be achieved but it will also influence, as a result of intrinsic characteristics of the nature of the response, the likelihood that thresholds and wearout will occur.

The major point is that it is impossible to talk sensibly about repetition effect, decay of effect etc. without considering the measure or measures which describe these phenomena.

To recap briefly, it has been suggested in the foregoing section that, firstly, wearout and forgetting are both factors which may contribute to a decline in response but they remain entirely separate phenomena. Secondly, it is the response to advertising and not the advertising itself which wears in at the threshold and wears out at the point of satiation. Thirdly, one or two methodological points have been made in relation to the need to specify advertising in a time dimension and to the need to specify the measure of response.

V THE VALUE OF THE STIMULUS - RESPONSE IDEOLOGY

It is very tempting to suggest that advertising wears in and wears out solely as a result of advertising factors, for example the creative treatment, the timing of the advertising and the appropriateness of the advertising theme.

Clearly, advertising may wear in and wear out as a result of a whole host of factors. For example, a consumer may have little interest in the advertising or the product, he may simply not believe the advertising claims, he may respond to a competitor's advertising, he may not be able to afford the advertised product or he may already be consuming as much of the product or brand as he would wish. Any of these reasons may affect the point at which the consumer begins to respond or fails to respond to the advertising.

Unfortunately, it is difficult to include the effects of such factors within the stimulus - response models because of the way in which they assume advertising works. Before these assumptions are questioned, it is worth considering a major shortcoming of the stimulus-response approach. This shortcoming has nothing to do with the underlying assumption of these models nor the fact that this assumption prevents the inclusion of many of the factors listed above which may affect response. Instead it is a basic failing within the stimulus-response conception.

i) The Problem of Aggregation

The stimulus-response approach deals with the advertising response of individuals. There is a danger in assuming that response functions of individuals can be summated to yield an aggregate response function representing a target population. These aggregate response functions may hide very real differences in response of individuals or groups of individuals.

For example, an aggregate response function like that shown in figure 4 may be composed of responses from two very different segments.

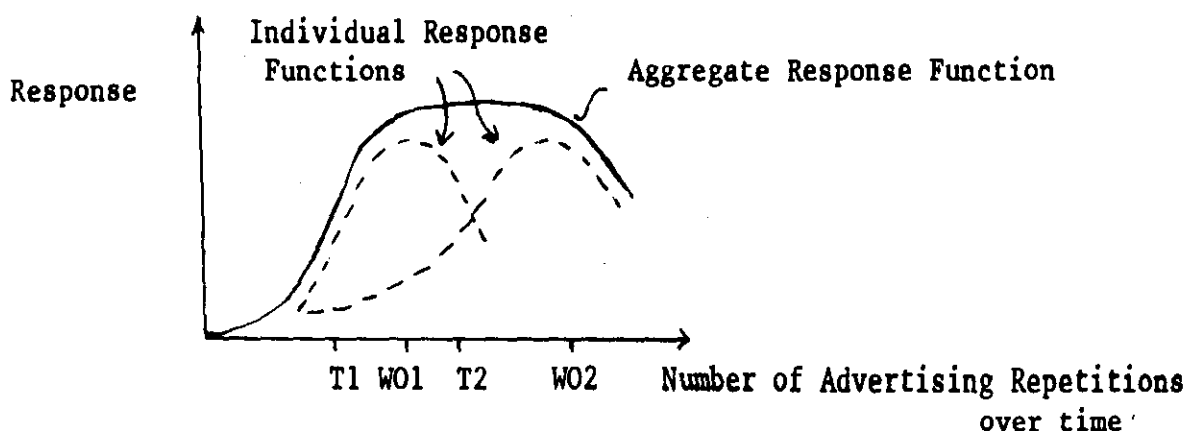


Figure 4 The Composition of an Aggregate Response Function.

In the diagram, the threshold T1 for the first segment may occur as a result of fewer repetitions of the advertising over time than in the case of the threshold T2 for the second segment. Similarly, wearout may occur earlier for the first segment W01 than for the second segment W02.

All that is being suggested is that consumers may enter and leave the aggregate sample for different reasons at different levels of advertising. For example, the first segment may consist of heavy media viewers and the second of light media viewers. Alternatively, the first segment may consist of heavy consumers of the product and the second may consist of light consumers of the product. Clearly, any number of bases of segmentation, such as the degree of consumer innovativeness or the degree of perceived credibility of the advertising, may be possible. Thus, at low levels of advertising, responsive members may predominate within the aggregate sample although these may be more responsive to advertising generally, including competitors' advertising. As the level of advertising increases, less responsive members of the audience may enter the aggregate. Although these members are less responsive generally they may also be less responsive to competitive advertising.

Evidence of such effects can be found in a paper by Emshoff & Ackoff (5).

The point is that thresholds and wearout may occur after different numbers of advertising repetitions for different segments of the audience. In other words, the concepts of threshold and wearout are based on the individual. It is therefore dangerous to aggregate points of threshold and wearout over entire samples or populations since the resultant values may only correspond to a mathematical average which may not, in effect, define the points of threshold and wearout for any members of the population at all.

Clearly, if it was possible to define the audience or population in terms of a single, finite segment who all responded and failed to respond in unison as a result of advertising repetition, then it would be acceptable to sum these responses to yield the aggregate response. Despite the fact that in practice it is virtually impossible to avoid the use of data relating to averages, it is important to be aware of the problems of aggregation in order to make sensible interpretations and judgements.

ii) The Case of Direct Response Advertising

In the case of this highly distinct form of advertising, the term wearout is capable of a different interpretation from that which has been employed so far.

For example, in the case of a highly specific campaign, such as recruitment advertising, it may be assumed that there is a finite, target segment who have recently reached a state at which they are eligible to respond to the advertising. Such a campaign would have a 'built-in' wearout since once all members of the target segment who are going to respond, have responded, a point of wearout must be reached. The campaign would not be run again until new members of the population reach the state at which they become eligible to respond to the advertising.

Any advertising whose purpose is to appeal to a finite audience,

who once they have responded will be unlikely to return to the market for a considerable period of time, will be subject to this inevitable 'wearout'. Some advertising for consumer durables and large seasonal items such as 'holidays' would be cases in point.

Much depends on the intensity of response to the advertising. If, in the recruitment example, it is assumed that all members within the target segment are either interested, and immediate responders to the advertising, or not interested in it then a point of wearout will occur after all members have seen the advertising once. In other words, all those who are interested will only need to see the advertising once before responding while for those who are not interested the desired response will not be forthcoming no matter how many times the advertising is repeated. Thus the campaign will only be run once after which it will have worn out.

A similar, highly distinctive, advertising situation also exists in the case of analgesics where consumers may be either interested or not interested according to whether they are suffering from the particular ailment mentioned in the advertising. This may explain why such types of advertising are thought by some to be lacking in terms of creative variety.

However, for many products, consumers cannot be classified into dichotomous groups according to interest or lack of interest. Quite simply, in the case of highly interested consumers the threshold may be represented by a single repetition. In addition, once the advertising has been acted upon by those who are interested, the advertising will not generate further response in that segment until they need to purchase again, which may be a long way off for infrequent purchases. At the other end of the scale, a threshold may never occur for disinterested consumers and therefore wearout cannot be encountered either. In the range where consumers are neither highly interested nor totally disinterested, there may be some value in the stimulus-response interpretation.

iii) Assumptions Underlying the Stimulus - Response Approach to Advertising

In the previous section, it has been suggested that the response to advertising may vary according to the level of interest exhibited by the consumer. Some people may be more interested in the product than others and some products may be more interesting than others.

Before the importance of interest is discussed in the context of factors which govern or regulate response, it is worth noting that different levels of interest or attention may give rise to very different forms of response.

A useful discussion of the validity of some assumptions used in formulating advertising is to be found in a book on human memory by Kelvin (6). One or two extracts from this work deserve to be cited.

" An assumption widely current in advertising is that human beings simply register impressions as they arise; that the important task of advertising is to stamp in impressions. But this view can only be held on the further, hidden assumption that perception is a passive process, something which simply happens to an individual" (p 13)

And again,

" If..... the consumer's problems are really understood and advertising is created accordingly, those with that problem will remember the message quite easily in principle after one exposure to it, for it will be meaningful..... Conversely, if it is meaningless, a stimulus can be repeated over and over again without having any effect. He (the consumer) 'adapts' to it, which means he ignores it; or shuts it out A stimulus which is meaningless, or which becomes so with constant exposure to it, simply becomes one of the many stimuli to which we cease to pay attention." (p 29).

The content of the above extracts bears very closely on what has already been said about interest in the advertising, although Kelvin suggests that the dichotomy is between advertising which is meaningful and advertising which is meaningless. Yet again, another author (Krugman (7)) has adopted a similar reasoning but chooses to call the term 'involvement'.

The difference between these viewpoints and that characterized by the stimulus-response models derives from whether the initiative for advertising response is attributed to advertising or to the consumer. While this paper is not concerned with a consumer behaviour perspective on response to advertising, it is interesting to note that there may be two separate processes at work.

In the case of advertising in which the consumer is interested, or involved, or to which he attributes meaning, a single advertisement may successfully achieve the desired objective. The threshold and wearout effects coincide on a single repetition. Conversely, there is a second case where advertising achieves effects through what is known as 'unanchored learning'. This assumes that a consumer may derive a benefit or may gain something from advertising which he encounters but in which he is not involved or overtly interested.

This distinction has important consequences for the stimulus-response interpretation of how advertising works and enables a more detailed and fruitful discussion of the empirical evidence on repetition effects, in terms of thresholds and wearout to be made.

VI THE IMPORTANCE OF REGULATORS OF RESPONSE IN ESTABLISHING THRESHOLDS AND WEAROUT.

Various authors have suggested that attention is the key which regulates learning. Interest and involvement are further assumed to have some bearing on attention. One study carried out by Grass (8) for the du Pont company actually states that the terms, interest and attention, are to be used interchangeably. Earlier, in section II, the point of wearout was taken to occur when attention reaches a maximum. If wearout is the point, measured in terms of the number of advertising repetitions, at which attention is withdrawn then thresholds may be defined similarly as the point at which attention begins.

Learning theory assumes that an individual will continue to respond to a series of repeated messages until he feels there is nothing more to be learned. At this point the message is taken to have become familiar and the individual withdraws attention from the message.

There are some essential modifications to such a viewpoint when applied in the context of advertising.

Advertising 'messages' or advertisements are rarely devoid of some creative element. Therefore, liking, amusement and entertainment become important when considering response to advertising. A consumer may continue to pay attention to advertising long after the point at which it has become familiar or been satially learned. Just as the consumer may continue to attend to advertising which has become familiar, for reasons to do with enjoyment and entertainment, so he may also fail to respond to advertising which has not become familiar for reasons of frustration or annoyance.

In the light of such comments it is more easy to interpret and understand some of the findings from studies of the effects of advertising repetition.

i) Characteristics of the Advertising Message

A study by Ray and Sawyer (9) looked at the effects of repeating two different types of advertising message in separate campaigns. The different message types were classified as 'grabber' or 'non-grabber' appeals. 'Grabber' advertising may be loosely described as a hard-sell copy approach and 'non-grabber' as soft-sell. In terms of the percentage of the audience who could correctly recall the advertising, they found that grabber advertising performed better than non-grabber advertising. In addition, after a total of six repetitions, not only was the percentage of respondents who could correctly recall the grabber advertising higher than in the case of non-grabber advertising but, also, the trend showed that this gap was widening. In other words, the response curve for the grabber campaign continued to rise while that of the non-grabber campaign was beginning to decline.

However, in terms of the percentage of respondents who expressed a favourable intention to purchase, the response curve for the non-grabber campaign was significantly higher and after an initial decline rose steadily and did not fall again until the fifth and sixth repetitions of the advertising. Conversely, the grabber campaign was initially more successful but then the response curve flattened and remained at a fairly low level after the second repetition.

In terms of threshold and wearout, it would seem that awareness of a hard-sell copy theme may be more resistant to wearout than that for a soft-sell copy theme. But, if the earlier comments on involvement are borne in mind, there is a suggestion that consumers exposed to the grabber campaign are more aware but less involved than those exposed to the non-grabber campaign. This suggestion is supported by the evidence on purchase intention. The higher recall of the grabber campaign leads to an initially high level of purchase intention but this falls away fairly rapidly and is surpassed by the purchase intention of those exposed to the non-grabber campaign.

The conclusion, stated only tentatively, is that a hard-sell copy theme is more successful in overcoming both an awareness and an intention to purchase threshold but that this generated a low level of involvement and as such is more susceptible to wearout. Conversely, a soft-sell approach does not perform as well at low levels of advertising but it is more resistant to wearout as the number of repetitions increases.

The conclusion is stated only tentatively because it is equally possible that consumers simply remember a hard-sell copy approach more easily but, in real terms, i.e. purchase intention, the more subtle soft-sell approach is more successful in retaining interest in the advertising.

In addition, the most suitable type of appeal, i.e. 'hard' or 'soft' sell, may depend on intrinsic characteristics of the product itself and on the circumstances accompanying the purchase. Different approaches may be appropriate for different products and under different circumstances. To the extent that a type of appeal may be inappropriate for a particular product, a low intention to purchase would be only to be expected. Therefore, it may be unwise to attempt to make any firm generalisations concerning the most suitable type of advertising copy or approach as a result of these empirical observations.

Another study, by Ostheimer (10), compared the use of black and white and colour advertisements on repetition effects.

In terms of percentage recall, the colour advertising after six repetitions was 'superior' with response to black and white exhibiting a decline after the fourth repetition. But, in terms of the verbal quality of what was remembered, the black and white advertising was far superior. Response in the case of the black and white was initially lower than in the case of colour but rapidly increased, surpassing colour, and remained significantly higher despite entering a decline after the fifth repetition.

These results are capable of interpretation within the context of interest or involvement. It would appear, for example, that consumers may become disinterested more quickly in the case of advertising in a black and white form than in the case of advertising in colour. But, it may be that the use of colour prolongs interest in the advertising without actually increasing the consumer's ability to correctly restate the content of the advertising. In other words, the use of colour may improve retained awareness of the advertising in general but may be counter productive, i.e. distracting, in terms of generating involvement in the advertising content. This interpretation would seem to be supported by the results for the verbal quality of response.

The conclusion, again stated tentatively, for thresholds is that, both in terms of percentage recall and verbal quality of recall, the threshold may be overcome more quickly by the use of colour. In addition, while advertising in colour is more resistant to wearout than advertising in black and white, the communicative property of the latter is superior. In short, the use of colour may be less susceptible to wearout because it retains consumer interest, involvement or enjoyment over a larger number of repetitions but it may distract from the consumer's ability to correctly recall the advertising. The decision for the advertiser is then whether he wishes to forestall the point of wearout by employing a form of advertising which may communicate less effectively.

A third example dealing with the effects of characteristics of the message on response was carried out by Sawyer (11). This study looked at what happened when two types of appeal were used. The first consisted of a refutational approach which acknowledges an opposing point of view and then proceeds to refute that claim. The second is a supportive appeal which ignores any competitive arguments and uses a completely positive format. The authors found that the refutational advertising approach performed significantly better, in terms of recall, than the supportive approach. In addition, the response curve for the refutational advertising continued to rise even after the sixth repetition while response to the supportive advertising declined after the fourth repetition. Again, it is not unreasonable to suggest that an approach which considers alternative or competing claims and then dismisses them is likely to generate involvement more effectively than one which merely ignores any competitive arguments. Consequently, the advertising approach which more successfully induces involvement is also less susceptible to wearout.

ii) Characteristics of the Product or Brand

In the above discussion, attention has focussed on characteristics of the advertising itself which may render some forms of advertising more interesting than others. The problem of whether more interesting advertising appeals and format are more successful in overcoming thresholds and holding off wearout have been considered.

In this section the matter to be discussed concerns whether certain products or brands are more interesting or more capable of generating involvement

than others. Unfortunately, there is not a great wealth of empirical evidence. That which does exist comes again from studies by Ray and Sawyer (12).

The first case refers to the way in which the type of good itself influences the effects of advertising repetition. Products were first classified into convenience goods and shopping goods. Descriptions of these categories are not as detailed as they might have been but convenience goods appears to refer to frequently purchased, low cost items, e.g. soaps and toiletries, food items, while shopping goods refers to higher cost, consumer durables including such goods as televisions and washing machines.

Effects of repetition were measured in terms of percentage recall and percentage purchase intention. Presumably, similar forms of advertising, in terms of format and appeal, were used although this is not explicitly stated.

In terms of percentage recall, it was found that recall for both shopping goods and convenience goods was almost identical up to the fourth repetition. Beyond this, however, recall of convenience goods advertising increased while that for shopping goods declined.

In terms of purchase intention, advertising for shopping goods was less successful with the response curve remaining fairly flat over the entire set of six repetitions. For convenience goods, the response curve showed greater fluctuations and, after an initial trough, rose above the response for shopping goods and thereafter continued to rise.

It is difficult to be certain about the reasons why a decline in response may have occurred earlier in the case of shopping goods than for convenience goods. An explanation in terms of thresholds and wearout does not intuitively accord with the findings since advertising for the more mundane convenience goods ought to have been found to be less interesting and therefore more likely to encounter wearout with repetition.

An alternative interpretation may be offered in terms of product familiarity and purchase behaviour. For example, it is not unreasonable to suggest that consumers who took part in the study are more familiar with, and more likely to purchase, the low cost convenience items than the shopping items.

As such, advertising for the convenience goods may be seen to be more relevant yielding higher levels of attention and producing higher levels of recall. Similarly, the low purchase intention in the case of the shopping goods may be due simply to the prohibitively high cost. Thus, interest remains at a fairly low level over the repetition of the advertising and as such no evidence of wearout is to be found.

The major point which stems from this study refers to the need to explicitly define the bases of interest. Clearly, a distinction must be drawn between products which are intrinsically more interesting than others and products which are of interest because they have been purchased frequently in the past.

In other words, a less equivocal interpretation of the findings, within the context of the role of interest as a determinant of the points of threshold and wearout, could only be given if the products compared had equal likelihood of purchase or if they were both new products.

One aspect which the study did not cover concerns the possibility of a credibility threshold. For example, the study might have looked at the different response curves for two different brands of convenience good compared with two different brands of a shopping good. It is reasonable to suppose that consumers may be more willing to accept that, for instance, one particular brand of television may be more superior to another and, equally, less willing to accept that one brand of soap may be superior to another. Thus, it is possible that advertising for certain products may be more susceptible to a threshold than others.

Unfortunately because of the lack of any evidence in the literature on this area the point remains one of speculation.

A second area of discussion in the aforementioned study is the degree of familiarity with the brand name. The authors Ray and Sawyer found that, in terms of recall and purchase intention, the advertising for well-known brands was more successful than advertising for lesser known brands. Intuitively, a threshold might have been expected in the case of lesser known brands and wearout might also have been expected for advertising for the well-known brand. Evidence of such effects was not found.

This raises an important point about the effects of prior advertising. It is easier to illustrate this point by thinking in terms of successive campaigns. Two cases are important. Firstly, where an awareness of a current campaign interacts with awareness of a previous campaign and secondly, where awareness of a current campaign interacts with a general awareness of the brand name or company name.

In cases where current and prior advertising awareness reinforce one another a lower threshold level for current advertising might be expected. So, for example, if a current campaign builds on the previous campaign theme and consistency in the mind of the consumer is maintained then a fairly steep rise in awareness may accompany the introduction of the current campaign. If the theme is changed from one campaign to the following campaign there is a danger that an interference effect will occur. To this extent, awareness of the previous campaign will inhibit the advertising performance of the current campaign and a slow, gradual rise in current advertising awareness may result. These effects may be represented diagrammatically. (Figure 5).

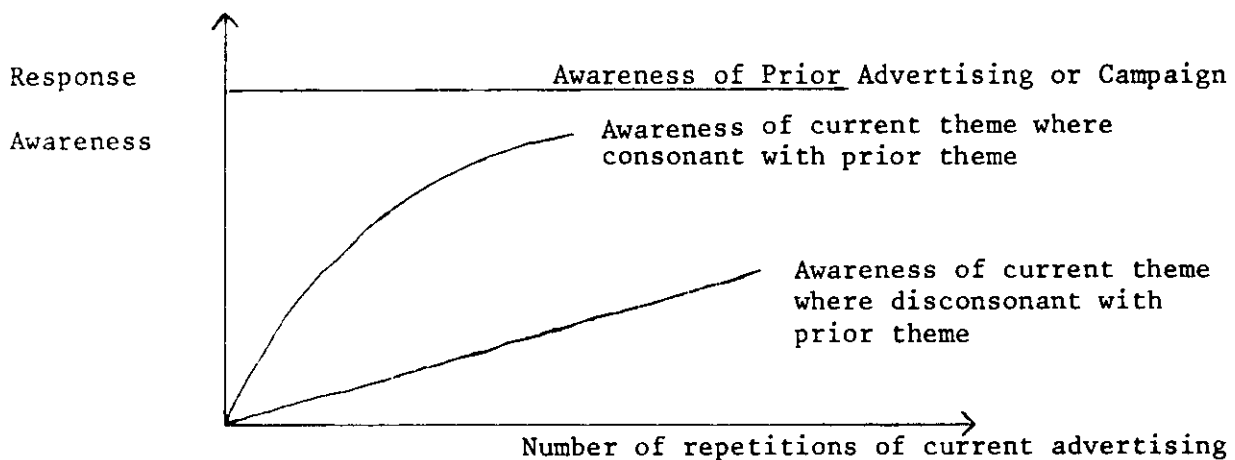


Fig. 5. Effects of Prior Advertising on Current Advertising Awareness.

This may explain the fairly common advertising practice of retaining the same theme from one campaign to the next while employing different creative treatments within the same basic format.

Similarly, in the second case, there may be a general awareness of the company or its image which has derived from prior campaigns. The success of

current campaigns may then depend on whether these are 'in-phase' or 'out of phase' with the general company image.

Clearly, in cases where unfavourable attitudes toward prior advertising have accrued, it may be desirable to ensure that current campaigns are not consonant with prior campaigns. Evidence (undocumented) suggests that it is often difficult to destroy previous campaign awareness.

Sadly, there are no empirical findings to suggest how prior campaigns affect threshold and wearout levels of current campaigns.

iii) Characteristics of the Advertising Schedule

The cases of advertising effects so far considered assume that very similar forms of advertising, either in terms of individual advertisements or individual campaigns, are being repeated to the consumer. But, what happens if the consumer is subjected to a number of essentially different advertisements?

This question was investigated in detail by Grass and Wallace (13). Again the findings may be reconciled within the 'interest' and 'involvement' concepts proposed earlier.

The authors found, firstly, that if the same advertisement was repeated on six occasions, the level of attention declined almost linearly. When two different advertisements were repeated alternately, attention declined more slowly and more irregularly until the consumer learned to anticipate the sequence after which it fell more rapidly. When five different commercials were rotated, the level of attention did not fall at all and actually reached a peak on the fourth repetition. It would appear, therefore, that as the number of different advertisements in a campaign increases, the rate of wearout, at any given frequency of exposure, decreases.

What is not known from this study is the relationship between the high level of attention gained from constant variations of the advertising, and other measures of response such as intention to purchase. For example, it was pointed out earlier that attention in the advertising, per se, may actually detract from the persuasive properties of the advertising. It would have been extremely interesting if the effects of such advertising variations in the campaign could have been linked to other forms of response, e.g. attitudes.

Secondly, the study makes no mention of thresholds. While it is conceivable that constant variations of the advertising may successfully prevent wearout, it is not known whether this also has a disadvantageous effect on thresholds. That is, constant variation may have a more diffuse effect which may mean that the threshold is less likely to be overcome.

Thirdly, the study takes no account of the nature of the advertising situation. For example, whether there is a need to constantly vary the advertising will depend on many factors including the level of interest in the advertising content. The case of direct response advertising has already been considered where it may be permissible to employ repetition of the same advertising if there is a highly interested, finite, target segment of the audience. Similarly, it may be permissible to repeat the same advertising if the product is likely to be of high interest. For example, even the simplest form of advertising could be repeated many times, beyond what might normally constitute the point of wearout, if the advertising was designed to inform people of the opening of a new store or the commencement of a January sale or if a new audience is constantly coming into the market.

iv) Characteristics of the Media.

Advertisers tend to employ a variety of advertisements to represent a particular campaign theme for a number of reasons which may stem only partly from the fear of encountering wearout. These reasons may include tradition or, a belief that variety of advertising is more successful in getting over the 'noise' in the channel or, a belief that variety is necessary to communicate more effectively or a belief about the different forms of media.

For example, the frequent repetition of the same commercial in radio may stem from the belief that radio is a low interest or 'attention getting' medium. Therefore, repetition of the same advertising may be seen as an attempt to overcome a high threshold level. Conversely, the need to ring the advertising changes may not be so important in the case of television media since there is greater opportunity to create more entertaining, more complex advertising representations which may be thought to be more resistant to wearout. Again, in the case of print media, a number of different advertisements are usually employed. This stems partly from the

ease with which the copy may be changed and partly from the advertising belief that, in a new edition of a magazine or newspaper containing new editorial and features, consumers may expect to see new advertising copy.

The point is, quite simply, that the levels of advertising which correspond to the threshold and wearout will vary according to characteristics of the media itself. Unfortunately, there is no hard evidence to suggest whether advertising wears out more quickly in the case of print media or whether a higher threshold level exists in the case of radio media. Nevertheless, advertising practice has a sound intuitive appeal which can be reconciled with the little that is known about thresholds and wearout.

v) Competition and Timing.

The importance of competition and timing have received a great deal of attention within advertising research but little of this work has been conducted with reference to thresholds and wearout. Competition and timing will not be discussed in detail here because it is difficult to draw positive conclusions from the existing studies about their effects on the points of threshold and wearout.

Intuitively, in the case of timing, a 'burst' campaign, employing a highly intensive level of advertising delivered in a relatively short space of time, ought to be more successful in overcoming thresholds but less resistant to wearout than a 'spread' campaign, which employs a less intensive level of advertising spread over a much longer period of time.

Many of the advertising models within media scheduling theory employ some form of response function, which implicitly makes assumptions about thresholds and wearout, but relatively few of these models are considered in a dynamic context. Certainly, attempts have been made to handle the effects of remembering and forgetting but, as yet, there has been no attempt to investigate how the points of threshold and wearout might vary according to differences in the time at which advertising is repeated.

It is unlikely that studies within the realms of media scheduling theory will contribute greatly to an understanding of the effects of advertising timing on thresholds and wearout.

In the case of competitive advertising activity, it is even more dangerous to speculate about the likely outcomes. For example, a high level of competitive advertising activity may serve to raise the threshold level of response to own advertising for highly differentiated, competing brands. Alternatively, if there is not a high degree of product or brand differentiation, in the eyes of the consumer, then competitive advertising may not only lower the threshold level of response to own advertising but may also advance the point of wearout for the product advertising in general.

Such effects remain open to speculation in the absence of concrete, empirical evidence.

In conclusion, this section has attempted to identify some of the factors studied in the literature which may affect the likely occurrence of thresholds and wearout. As such, the discussion, hopefully, provides some insights into the problem and serves to identify areas where further study might prove particularly worthwhile.

These studies which have been discussed provide a note of optimism. When the findings of these studies are interpreted in the context of what is known about the role of interest or involvement in the advertising, a common line of argument begins to develop which helps to shed some light on the concepts of threshold and wearout.

VII SUMMARY AND CONCLUSIONS

This paper is designed to fulfil essentially three major objectives. Firstly, it is designed to introduce the concepts of threshold and wearout and to provide acceptable definitions of these terms. Secondly, it is designed to review the state of knowledge on these phenomena which currently exists in the literature. Thirdly, it is designed to elaborate on this knowledge and to discuss additional problems and suggest additional insights into an understanding of thresholds and wearout.

Thresholds and wearout are two special cases of advertising effectiveness. In essence, they represent the upper and lower limits which define the boundaries of advertising effectiveness. Despite the lack of attention devoted to these topics, threshold and wearout effects are implicitly accepted and acted upon throughout advertising and media planning.

A simple understanding of thresholds and wearout can be provided in terms of the stimulus-response approach to how advertising works. Quite simply, the threshold level of advertising corresponds to the number of times that the advertising must be repeated before an initial response, defined in some way, is forthcoming. It may be taken to be the point at which advertising encounters wearin. Similarly, if the advertising is continually repeated, there will come a point where the consumer no longer feels inclined to respond to the advertising. This decline in a willingness to respond is assumed to be solely a function of the fact that the advertising has been repeated a number of times and as such it has become familiar and lost the ability to 'involve' or 'interest' the consumer. When this point, frequently referred to as the point of satiation or saturation, has been reached the advertising or the response to the advertising has worn out and the advertising should be replaced.

Advertising is essentially a flow process: it is a collection of representations of a theme or message which are to be scheduled or allocated over time. As such, attempts to assess the effects of successive advertisements must not only look at the way in which the response potential of the advertising varies with repetition but, also, must consider the way in which these effects accumulate and decay over time. Therefore, it is imperative that advertising is specified in a time dimension. The concepts of both

threshold and wearout are dynamic entities and must be considered in a dynamic framework.

The problem of measuring and understanding thresholds and wearout becomes a complex one. This complexity cannot be adequately handled within the stimulus-response approach. In addition, the stimulus-response approach deals with individual responses and there are distinct dangers in summing such responses to form aggregate levels. A clue to an alternative interpretation of the problem, other than in terms of stimulus-response, is provided when the case of direct response advertising is considered. This suggests that there are two essentially different response processes at work depending on the level of interest or involvement in the advertising. Indeed, many of the findings on the effects of advertising repetition may be more readily reconciled within this viewpoint than within the more rigid viewpoint of the stimulus-response models.

Among the factors considered in the light of the role of interest or involvement in the advertising, are the characteristics of the advertising appeal and format, characteristics of the media, the effects of prior campaigns, the nature of the product or brand and the effects of timing and competition. Tentative conclusions are drawn, within each of these areas, in relation to the likely effects of these factors on the levels of threshold and wearout.

Finally, constant mention has been made of the fact that advertising may wear in and wear out over time for a number of reasons which may have little to do with advertising factors. A failure, on the part of the consumer, to respond may be due to satiation but it may also be due to a fault in the device used to measure response. It may be due to the fact that the consumer cannot afford the product. It may be due to the fact that the consumer simply does not accept the advertising claims. It may be due to the fact that the consumer is using a competitor's product or is already consuming as much of the product as he would wish.

Any of these factors would account for a decline in the level of response.

In conclusion, much work remains to be done in this area. The paucity of hard data belies the importance of the concepts of thresholds and wearout.

Many useful insights have already been gained from considering the way in which practitioners operate in accordance with their beliefs and understanding about the likelihood of threshold and wearout effects in their own market situations. Continued study of both the theoretical and practical implications of these phenomena can only serve to contribute to a greater understanding of the conditions under which thresholds and wearout occur and the factors which influence them.

The Marketing Communications Research Centre is gathering further information to examine the phenomena of thresholds and wearout. Initially, questionnaires are being sent out to advertising decision makers who advertise a variety of products. These questionnaires will allow a statement to be made on current behaviour on thresholds and wearout and how different circumstances appear to influence this. Evidence of thresholds and wearout in practice has been gathered by personal interview and these are being followed up. Finally, the Marketing Communications Research Centre hopes to proceed to organise cooperative experiments among MCRC sponsor companies to further establish the causes and effects of thresholds and wearout in a variety of specified situations.

