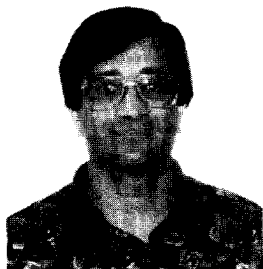


Effective Frequency: One Exposure or Three Factors?



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Faced with increasingly competitive markets and higher media costs, advertising managers keep looking for research findings that can tell them exactly how often to run an ad campaign. Two schools of thought have emerged on this issue: minimalists who assert that one exposure is enough and repetitionists who believe that repetitive advertising is necessary. Which view is correct? This paper argues that neither view is correct. Effective frequency depends on three factors rather than on a single exposure level. These three factors are brand familiarity, message complexity, and message novelty. The opposing views in the literature can be explained by differences in research context on these three factors.

FOR DECADES ADVERTISING RESEARCHERS have been searching for the holy grail of effective frequency, the precise number of exposures that maximizes consumer response to an ad. It has become the magical number which tells a manager how much exactly to spend on advertising. The advertising literature on this topic can be divided into two schools of thought which I refer to here as minimalists and repetitionists.

Minimalists are those who believe that a few exposures achieve the maximum response. The earliest proponent of this view is Krugman (1972), who argued that *three* exposures were enough. The earliest empirical evidence on this topic was obtained by McDonald (1971) who found that response peaked at *two* exposures. Naples (1979) popularized these results with the concept of effective frequency. These studies dominated debate on this issue for a long time because compelling empirical evidence was hard to come by. More recently, studies by Jones (1995) and Gibson (1996) have rekindled the debate by arguing that the three-exposure finding of Krugman and the two-exposure finding of McDonald (1971) may be too high. Jones (1995) and Gibson (1996) argue that *one* exposure may be more than enough to trigger maximum response to advertising. For example, Jones (1995) studied single-source data for 142 brands. He found that households who have been exposed just once to a brand's ad in the week prior to a purchase showed the highest increase in share of purchases of that brand. Gibson (1996) found

similar results from analyzing TRI-NET field experiments of 60 commercials at General Mills. He found that just one exposure of an ad was adequate to achieve big changes in attitude and coupon usage for that brand; multiple exposures were not necessary.

At the other end of this spectrum are *repetitionists*, those who believe that advertising repetition is essential for optimal consumer response. One of the earliest and most compelling studies supporting this viewpoint is that by Zielske (1959). He found that repetition of a message as many as 13 times continued to increase consumer response as measured by recall of the message. When these repetitions were massed over a 13-week period, that response peaked quickly, but also decayed rapidly after the campaign. However, when the repetitions were spaced out once a month over a year, the response continued to increase steadily during that period to reach a similar peak, but with much less decay.

Many other studies in this stream of research studied the role of advertising repetition on various measures of response in both field and laboratory situations (Pechmann and Stewart, 1992; Sawyer, 1981; Sawyer and Ward, 1976). These studies have sometimes been classified as analyzing the *wearin* and *wearout* of advertising. One review suggests the following conclusions about the field studies in this area that allowed for voluntary attention to distributed exposures (Pechmann and Stewart, 1992):

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- Attention to an ad increases with repetition for a maximum of 15 exposures in two months.
- Recall of an ad increases with repetition for a maximum of 12 repetitions in two months.
- Attitude to an ad becomes negative with increasing repetition.
- Brand sales in response to ad repetition increase with increasing attention and recall.

The message from the latter set of studies is that response to an ad is not instantaneous and increases with repetition, at least in the first few months of a campaign. The question that managers should ask is: which of these two perspectives is right? Whom should they believe? What strategy should they adopt?

A THEORY OF EFFECTIVE FREQUENCY

This paper argues that neither view is correct if viewed as a law or a universal generalization about advertising's effects. However, both views may be right under certain conditions. Indeed, both these schools of thought may even be describing the same phenomenon. The reason they seem in opposition is that each view refers to a different context of advertising exposure and response. *The context of advertising is what determines whether one, two, or many exposures are necessary for optimal sales.* This context of advertising can be defined in terms of three factors: brand familiarity, message complexity, and message novelty. These three factors may well constitute the elements of a new theory of effective frequency.

Brand familiarity

Characteristics of the audience are likely to play a major role in the effectiveness of advertising. The most important audience factor is *brand familiarity*, which is the extent to which the audience of an ad is fa-

miliar with the brand being advertised. Familiarity can be measured by a number of variables such as consumer's knowledge of, experience with, or loyalty to the brand. It may also be the underlying factor in some brand-related variables such as the brand's market share, newness, or order of entry into the market. Thus, by focusing on one underlying factor, such as familiarity, we can develop a parsimonious theory of effective frequency over a number of related measures.

Consumer response to repetition of a brand's advertising differs substantially depending on a consumer's familiarity with the brand (Tellis, 1988). The moderation of response by brand familiarity may be due to a number of causes. First, because consumers attend to ads selectively, ads of the familiar brand may receive greater attention at lower repetitions than those of the unfamiliar brand (Sawyer, 1981). Second, consumers may also better identify with ads of the familiar brand because of their experience

with the brand (Hoch and Deighton, 1989). Third, to maintain consistency with their actions and beliefs, consumers may interpret ads for the familiar brands more favorably.

Lastly, the role of familiarity can be explained by the habituation-tedium theory of ad response (Sawyer, 1981). According to this theory, a combination of two factors—habituation and tedium—mediate ad response. When subjects first see novel stimuli, the novelty leads to uncertainty and tension. Repeated exposure reduces this uncertainty and tension, leading to familiarity and liking. This process is called *habituation*. At the same time, the repetitive exposure to the same stimuli leads to growing boredom and decreased liking. This process is called *tedium*. Habituation is strong early on, while tedium is strong later on in the sequence of repetitions. The two factors together lead to a bell-shaped response to repetition (see Figure 1). However, these factors may work differently for familiar and unfamiliar brands. For the familiar brand, both habituation and te-

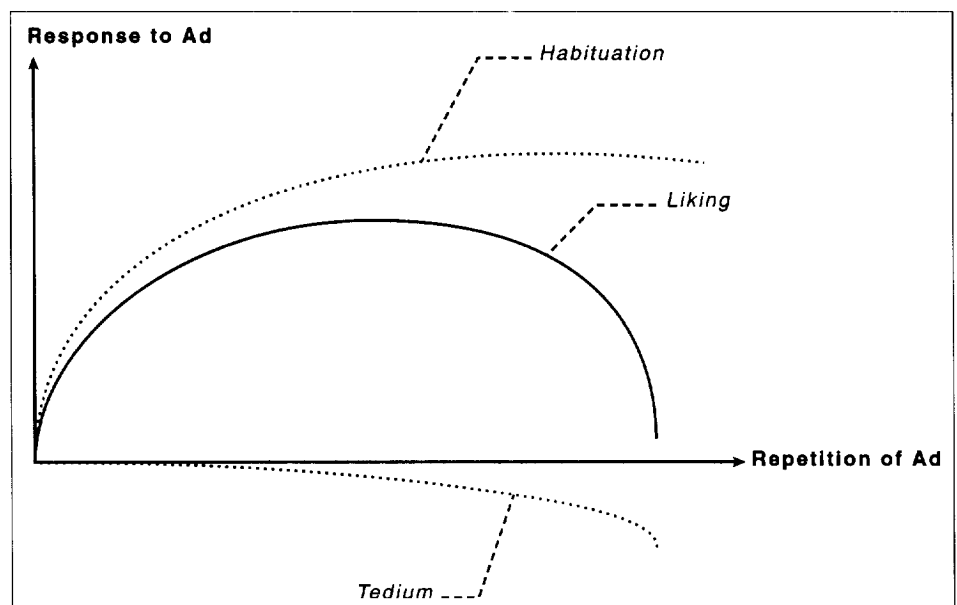


Figure 1 Schematic Diagram of the Habituation-Tedium Theory

dium may occur sooner, leading to an immediate response and earlier peak. In contrast, because of the novelty of the unfamiliar brand, more repetitions may be required for habituation, while tedium may not occur until much later (see Figure 2).

Brand familiarity may be the reason for the apparent difference in results between the earlier field studies on advertising wearin and wearout and the recent findings of Jones (1995) and Gibson (1996). The earlier studies often experimented with fictitious messages or brands, to which respondents had no prior exposure. In such a context, advertising can keep receiving a positive response even with considerable repetition. In contrast, the latter studies focused on existing brands in mature competitive categories. In these cases, heavy advertisers often tend to be brands with moderate to large market share. These brands are familiar to consumers; as such their advertising needs little repetition.

Indeed, the first study with single-source data to analyze the repetitive effects of advertising found strong support for the moderating role of brand familiarity (Tellis, 1988). The study found that for households that were loyal to a brand, response to ad repetition occurred immediately and peaked at a relatively low frequency of 2 to 3 exposures per week. On the other hand, for households that were nonusers of the brand, positive response to the ad required several repetitions per week and did not seem to peak within the range of frequencies available in the data. The response pattern resembled the idealized curves in Figure 2.

Message complexity

An important message factor that influences the effectiveness of ad frequency is the complexity of the ad's message. A *complex* message is one that is sufficiently dif-

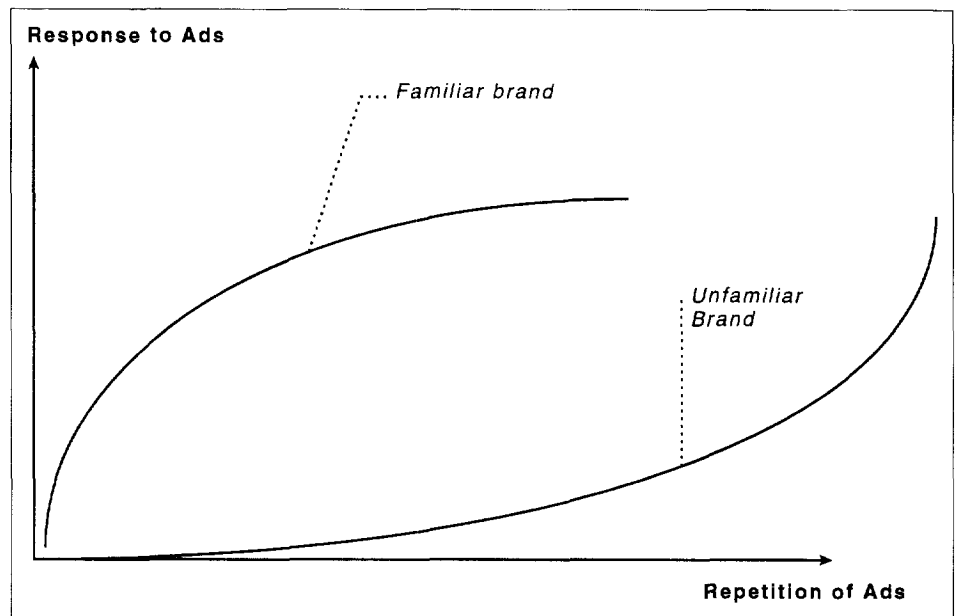


Figure 2 Response to Advertising Moderated By Brand Familiarity

ficult, rich, or ambiguous that the receiver cannot absorb all the information it contains in a single exposure. A long line of research suggests that repetition enhances the persuasive effect of ads containing complex messages (Sawyer, 1981; Pechmann and Stewart, 1992). This effect can also be explained by the habituation-*tedium* theory of response to ad repetition. Each repetition of an ad with a complex message allows the receiver to gain new insights about the message. This stimulation maintains the receiver's interest in the ad and delays the onset of *tedium*. Complex messages can take several forms. The most commonly used in advertising are complex arguments and *soft-sell* messages.

A *complex argument* is one that uses several reasons or pieces of evidence, some of which are in favor and others are against the advocated position. Good examples of a complex message are two-sided and *refutational* appeals. A *two-sided* appeal uses some weak or irrelevant cons with the strong pros of an advocated position.

A *refutational* appeal first presents the counterarguments to the position being advanced, and then destroys it. A *soft-sell* message is a subtle one that allows for different interpretations, persuades by suggestion, and makes no direct request for action or change. Ads that rely primarily on emotional appeals with no resort to arguments are also classified as *soft-sell*.

Unfortunately, many field studies of the effects of advertising repetition have not controlled for this important aspect of advertising. Indeed, while single-source data provide an especially rich environment for examining the effects of advertising in terms of household exposure, purchasing, and demographics, they contain an especially poor record of specifics of the ad. One study that examined the role of ad characteristics in single-source data found that, in general, repetition of ads containing emotional appeals tended to be more strongly associated with successful campaigns as measured by increases in market share than those that used other appeals (MacInnis, Rao, and Jaworski, 1997).

Message novelty

The third factor that is critical to the effectiveness of advertising is the novelty of the message. Some advertising campaigns have become legendary because of their sustained use (and apparent effectiveness) without changes over decades. But those are examples of a few campaigns. In most cases, advertisers change their ad campaigns, either because the ad was ineffective to begin with, or the campaign has *worn out*. Indeed, a major reason to change an advertising message is that it has worn out. Why do ads wear out? The habituation-tedium theory of ad response provides a good answer. As the number of repetitions increase, consumer tedium grows faster than does habituation. At a certain point in time, further repetition has no positive impact. At that point, a novel message or execution seems like a welcome diversion from the old. It draws consumer attention and processing of the message and is more effective than the worn-out ad. Major field studies have underscored this conclusion by finding positive effects for changes in creative or ad campaign (Batra et al., 1995; Eastlack and Rao, 1989; Lodish et al., 1995).

A natural question arises at this point. If campaigns do indeed wear out, then would they not also wear in? The majority of studies that have examined this issue conclude that while wearout does occur, wearin may not occur (Pechmann and Stewart, 1992). That is, *good* ad campaigns may be effective right from the first exposure, even though their effectiveness wears out after a period of time such as a couple of months to a quarter. Indeed, managers need to guard against one of the greatest misuses of the phrase "long-term effects of advertising." Some advertisers may claim that an ad that is not currently effective needs more time for its message to persuade consumers. In mature consumer categories, evidence indicates that

if an ad campaign is not effective *early on* it will never be effective (Lodish et al., 1997). Long-term effects only become an issue when there are some short-term effects to begin with.

Within the duration of a campaign, studies find that *spacing out* of ads or pulsing is likely to be more effective than massing, especially if the goal of the campaign is for consumers to learn a new message. A good example is Zielske's classic 1959 study. This effect can also be explained by the habituation-tedium theory. Rapid repetition in a short period of time leads to tedium, lower interest, and attention without much increase in habituation. The result is less effectiveness of the message repetition. However, delay between exposures reduces the tedium while increasing the habituation. The result is higher effectiveness of message repetition. However, even with spacing exposures, a good message can ultimately wear out. At that time, a novel message seems the best solution.

A growing body of field research indicates that message novelty may be an important factor in advertising effectiveness. For example, Eastlack and Rao (1989) designed 20 experiments to test the effect of various aspects of advertising on SAMI warehouse withdrawals (sales) of Campbell Soup. They found that changes in creative were more likely to have an impact on sales than dramatic increases or decreases in advertising weight (or frequency). Lodish et al. (1995) analyzed a total of 96 copy-test pairs using IRI split-cable data from a three-year period. These tests showed that advertising was more effective when the copy was introductory and when the copy strategy had been recently changed. Batra et al. (1995) studied tracking data of True North Communications on 25 brand campaigns. They found that advertising had a greater effect on purchase intentions when the ad featured

a new strategy or new copy or new benefits. Thus message novelty may be an important albeit under-researched means of effective advertising.

Perhaps the greatest use of the principle of novelty is in linked ad campaigns. A *linked ad campaign* is one which adopts the same strategy and theme but differs in execution. Examples are campaigns of American Express based on the theme, "Don't leave home without it," or AT&T's "Reach out and touch someone." More recently, the National Milk Processor Promotion Board has also successfully used this strategy with themes of "Milk. What a surprise!" and "Milk. Where's your mustache?" Each of these campaigns retained the theme while frequently changing the execution. Each execution has its own novel symbols, endorsers, characters, or plot that retain consumer interest while reiterating the message. Thus each execution could be scheduled for multiple repetitions, while the campaign as a whole could sustain a very high level of repetition without wearing out. Chiat/Day's campaign for Absolut Vodka is an outstanding example because the campaign has lasted over a decade, while the executions have changed regularly.

The two streams of research on effective frequency reviewed above differ probably by the way they address this issue of message novelty. Repetitionists invariably focus on the novelty of the message over the life of the campaign. With adequate spacing out, independent repetitions of an ad can be effective over a period of time such as a quarter. In contrast, minimalists invariably focus on the short-term effectiveness of an ad exposure independently of the campaign to which it belongs. They consider the period between purchases or the week before a purchase. Actually, both Jones (1995) and Gibson (1996) find some ads to be ineffective or to have negative effects on sales. Are these ads that have

worn out or have run past their optimum period of effectiveness?

DISCUSSION

Faced with increasingly competitive markets and higher media costs, advertising managers keep looking for research findings that can tell them exactly how often to run an ad campaign. Recently, two studies in particular have suggested that one exposure per week is the best ad frequency. This is an easy answer for a persistent and vexing problem. Is it valid? And if it is, is it valid for all brands and situations? This paper argues that effective frequency may depend on three factors, rather than in a single exposure. These three factors are brand familiarity, message complexity, and message novelty. In particular, a review of the literature suggests:

- Brands familiar to consumers may achieve peak response at lower levels of ad frequency. New or unfamiliar brands may require higher ad frequency to break through the clutter and achieve positive response.
- Complex messages, including soft-sell or emotional appeals, may be able to sustain and benefit from higher ad frequency. Hard-sell or rational appeals may achieve peak response at lower ad frequency.
- Novel messages may achieve immediate positive response without wearin. Wearout may be delayed by spacing out exposures within a period. Wearout may also be delayed by using novel executions on the same theme. However, all campaigns are likely to wear out ultimately, as early as two months from the start. At that point, a novel message or campaign may be the best alternative.

Many other measures and variables can

be subsumed under these three factors. Besides their explanatory power, these factors also have important managerial implications.

An important implication of the role of familiarity is that brands with a large market share enjoy a double advantage. They have a larger following of consumers, who are more familiar with them, than brands that are new or have a small market share. So large-share brands need less advertising than small-share brands (Jones, 1990; Tellis, 1988). One solution for new or small-share brands is to induce brand trial to increase familiarity among consumers who are unaware of the brand. Such trial can be initiated by samples, price discounts, or other promotions. The advertising of these brands may be more effective once consumers have some familiarity with them.

An important implication of the role of message complexity is the potential of soft-sell and emotional appeals. Evidence from several studies indicate that emotional appeals may be effective not only for "feeling" products such as perfumes or sports cars but also for so-called thinking products such as cameras, insurance, or education (Tellis, 1997). An important implication of the role of familiarity is the use of advertising campaigns that retain the same theme, or even copy, but vary the execution. Indeed, studies indicate that advertisers should put greater emphasis on changes in creative rather than on extensive analysis of reach and frequency (Eastlack and Rao, 1989).

A practical issue in effective frequency which this framework does not address is the appropriate time period for analysis. Should the period of analysis be based on the frequency of the medium carrying the ad, the duration of the purchase cycle, or some general measure of time, such as a week? The argument for adopting the frequency of the medium is that it deter-

mines the periodicity of the independent variable and is the most plausible statistically. In that case, effective frequency would vary dramatically by medium. The argument for adopting the purchase cycle is that each purchase so dominates a consumer's thinking that all previous advertising would have small cumulative effects. Advertising after the purchase would have the most important influence for the next purchase. The purchase cycle of an appliance is about seven years, that of a car about five years, while that of a tube of toothpaste about one quarter. In that case, effective frequency would vary dramatically by product category.

The argument for an absolute measure of time is that consumer memory for ads lasts for some fixed period. But is that period an hour, day, week, or month? For example, a direct marketer that advertises on TV and offers an 800 number for purchases may be interested in effective frequency per hour. If response to its ad is not immediate or within the hour, the pressure of competing messages and activities is likely to dilute the impact of that ad. At the other extreme, a corporate advertiser may be interested in long-term improvements in consumer goodwill rather than any immediate changes in behavior. In either case, effective frequency would vary by the type of change desired by the ad campaign. Thus, in addition to the three factors described above, the practical issue of period of analysis must also be considered when determining effective frequency.

CONCLUSION

How many exposures are enough? This paper argues that the answer depends on three factors: brand familiarity, message complexity, and message novelty. This answer is a little more complex, requiring more thought and analysis, than one that is based on a single number. But it is prob-

ably more robust and less likely to mislead managers. Studies that claim that a single ad exposure is enough are not necessarily wrong. However, they probably apply to specific situations defined by relatively simple messages that are not particularly novel and for brands that are familiar to consumers. More generally, they probably reflect the norm of "reminder" ad campaigns for mature brands in mature categories. **JAR**

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