# THE EFFECTIVENESS OF SUPERIMPOSED ADVERTISEMENTS VS. TRADITIONAL COMMERCIALS

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## ABSTRACT

# THE EFFECTIVENESS OF SUPERIMPOSED ADVERTISEMENTS VERSUS TRADITIONAL COMMERCIALS

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This study aimed to find out the effect of type of advertisement & number of advertisement manipulation on memory for and attitude towards advertisements. Type of advertisement was manipulated via embedding either superimposed advertisement(s) or traditional commercial(s) in a movie. The number of advertisement manipulation was made through embedding either 1 or 7 advertisements for both types of advertisements in the same movie. With respect to type of advertisement manipulation, it was hypothesized that, both superimposed advertisements and traditional commercials may have an access to LTM for later recall and recognition. However, it was expected that, the recall and recognition scores of the viewers exposed to superimposed advertisement(s) will be lower compared to traditional commercial viewers due to the shorter duration and background distraction characteristics of superimposed advertisements. Regarding number of advertisements manipulation, it was hypothesized that, regardless of the type of

advertisement, the recall and recognition scores of the viewers exposed to 7 advertisements will be lower compared to viewers exposed to only 1 advertisement due to retroactive and proactive inhibition. Secondly, it was hypothesized that, for both types of advertisements the viewers exposed to 7 advertisements will be able to recall at most 5 advertisements concerning that, at most 4 or 5 chunks (advertisements) could be processed in STM at one time (Simon, 1973). Further, it was expected that, the processing capacity of STM for viewers exposed to 7 superimposed advertisements might be reduced due to simultaneous view of the advertisements with the ongoing program, which may result in less processing of chunks (advertisements) and therefore lower levels of recall as compared to viewers exposed to 7 traditional commercials. In the present study, in addition to attitude towards the embedded advertisements, viewers' attitude towards to program was also measured concerning the potential effects of program environment related variables on attitude towards advertisements. However, in relation to both attitude towards program and attitude towards embedded advertisements, it was proposed that, the variations will be on an individual basis; thus, no main effect was expected with respect to both aspects of attitude measurements. 60 undergraduate students from METU participated in the study. Data gathered via administration of 2 different attitude scales and 3 different memory scales. The results of the present study confirmed some of the hypothesizes. However, some were only partially confirmed and for some, no evidence could be obtained. On the whole, it was concluded that, the effectiveness of traditional commercials are superior compared to superimposed advertisements with respect to memory for advertisements. However, when individuals are exposed to multiple advertisements (7 in our case) this difference was negligible between traditional commercials and superimposed advertisements. The implications of the study were discussed.

Keywords: Superimposed Advertisements, Traditional Commercials, Number of Advertisements, Advertisement Effectiveness

# BANT REKLAMLARIN VE GELENEKSEL TELEVİZYON REKLAMLARININ ETKİLİLİK AÇISINDAN KARŞILAŞTIRILMASI

Kocabıyıkoğlu A. Pınar Yüksek Lisans, Psikoloji Bölümü Tez Yöneticisi: Doç. Dr. Bengi Öner Temmuz 2004, 81 Sayfa

Bu çalışmanın temel amacı, reklam türünün ve reklam sayısının, reklamlarının hatırlanması ve reklamlara karşı tutumun oluşmasındaki temel etkilerinin araştırılmasıdır. Bu çalışmada reklam türü, aynı film içine bant reklam(lar) veya geleneksel teleziyon reklam(lar)ı yerleştirilerek deneysel olarak manipüle edilmiştir. Çalışmada reklam sayısı ise her iki reklam türü için seçilen film içine 1 veya 7 reklam yerleştirilerek deneysel olarak manipüle edilmiştir. Reklam türü manipülasyonu ile ilişkili olarak hem bant reklamların hem de geleneksel televizyon reklamlarının daha sonra hatırlanabilecek şekilde, uzun süreli belleğe giriş yapabileceği hipotezi öne sürülmüştür. Ancak, bant reklamların daha kısa süreli olması ve arka planda devam etmekte olan programın dikkati dağıtabileceği göz önünde bulundurularak, bant reklam(lar)a mazur bırakılan izleyicelirinin reklamları tanıma ve hatırlama puanlarının geleneksel televizyon reklam(lar)ı izleyicilerinin puanlarına kıyasla daha düşük olması beklentisi vardır. Reklam sayısı

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manipülasyonu ile iliskili olarak ise, reklam türünden etkilenmeksizin 7 reklama maruz kalan izleyicilerin, geriye doğru ket vurma ve ileriye doğru ket vurma dolayısıyla 1 reklama maruz kalan izleyicilere kıyasla reklamları tanıma ve hatırlama puanlarının daha düşük olacağı beklentisi vardır. Bunun yanında, literatürün bir seferde kısa süreli bellekte en çok 5 parça bilginin işlenebileceği bilgisi ışığında (Simon, 1973) her iki reklam türü için de 7 reklama maruz kalan izleyicilerin en çok 5 reklam hatırlayabileceği hipotezi öne sürülmüştür. Ayrıca, 7 bant reklama maruz kalan izleyicilerin reklamlara ve programa aynı anda maruz kalacağı düşünülerek bu izleyicilerin kısa süreli bellek kapasitesinin düşebileceği ve bu durumun geleneksel televizyon reklamlarına kıyasla daha az reklamın hatırlanmsı ile sonuçlanacağı beklentisi vardır. Bu çalışmada, program içine yerleştirilen reklamlara karşı tutumun yanı sıra olası program ortamı değişkenlerinin reklama karşı tutum üzerindeki etkisi göz önünde bulundurularak izleyicilerin programa yönelik tutumları da ölçülmüştür. Ancak, hem program içine yerleştirilen reklamlara karşı tutum hem de programa karşı tutum ile ilgili olarak potansiyel farklılıkların bireysel bazlı olacağı öne sürülmüştür. Dolayısıyla her iki tutum ölçeği için de belirgin ana etkiler beklenmemektedir. Araştırma Orta Doğu Teknik Üniversitesi'nde okuyan 60 öğrenci üzerinde yürütülmüştür. Bilgiler 2 farklı tutum ölçeği ve 3 farklı bellek testi uygunalarak elde edilmiştir. Bu çalışmanın sonucunda, bazı hipotezler doğrulanmış, bazı hipotezler ise kısmen doğrulanabilmiştir. Öte yandan, bazı hipotezler için işe hiç bir kanıt elde edilememiştir. Genel olarak çalışmanın sonuçları değerlendirildiğinde, reklam etkililiği açısından geleneksel televizyon reklamlarının bant reklamlara kıyasla daha etkili olduğu sonucuna varılmıştır. Ancak, izleyiciler çok reklama (7 reklam) maruz bırakıldığında geleneksel televizyon reklamları ve bant reklamlar arasındaki bu farkın göz ardı edilebilir bir fark olduğu bulgusuna varılmıştır. Sonuçlar ilgili literature içinde tartışılmıştır.

Anahtar Kelimeler: Bant Reklamlar, Geleneksel Televizyon Reklamları, Reklam Sayısı, Reklam Etkililiği

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#### **CHAPTER 1**

#### **INTRODUCTION**

The main purpose of this study is to compare the superimposed advertisements vs. traditional commercials with respect to advertising effectiveness measured by attitude towards and memory for advertisements embedded in a selected movie. In addition to this, in order to control the effects of number of advertisement on effectiveness of type of advertisement (superimposed advertisements vs. traditional commercials) and to further contribute to the literature, we aim to compare the effects of single (1 advertisement) vs. multiple (7 advertisement) advertisements for both types of advertisements.

To our knowledge, there is no specific literature provided comparing the effectiveness of superimposed advertisements and traditional commercials. Furthermore, there is no literature available with respect to superimposed advertisements in general. However, the literature provides us with important findings, which may have great implications to our specific topic.

Available literature on memory for advertisements serves us as a useful basis suggesting implications with respect to both type of advertisements and number of advertisements manipulations, which will be employed in this study. According to Atkinson & Shiffirin's (cited in Bettman, 1979) memory model, if the incoming information or message is not adequately processed, it is lost from short term memory about 30 seconds without having the chance to have an access to Long term memory (LTM) for later recall and recognition. The findings by Newell & Simon (cited in Bettman, 1979) suggests a rough duration that is required to fixate one chunk of information to LTM for later recall and recognition, which is said to be five to ten seconds for recall and two to five seconds for recognition respectively. However, the literature findings indicates that, the duration of

advertisements has a positive impact on memory for advertisements attributed to the fact that as the same information has more chance to be repeated frequently within a single exposure in longer commercials, retrieval likelihood is also facilitated in longer commercials. Studies by Pieter's and Bijmolt's (1997) and Patzer (1991) in which shorter commercials are compared with longer commercials, the longer commercials are found to be superior over shorter versions with respect to recall and recognition.

Apart from the studies concerned with duration of the advertisement for later recall and recognition, some stream of research concentrates on the limited capacity of memory in relation to advertising effectiveness (e.g. Stewart 1989). Mainly, these studies highlight the fact that, due to the limited processing capacity of memory, advertisements are subjected to failures of later recall and recognition (e.g. Newell & Simon 1972, Craick & Lockhart 1972). For instance, Newell and Simon (cited in Bettman 1979) provided evidence that at most seven chunks of information could be processed at any one time due to the limited capacity of STM. Further research by Simon (cited in Bettman 1979) revealed that 4-5 chunks capacity is more likely. Moreover, the literature findings suggest that, the capacity is lowered if other tasks are undertaken simultaneously. Research findings in the area of divided attention further supports the issue indicating that, due to the limited human attention & processing capacity, parallel processing of two simultaneous inputs, if any, is usually impaired and always less efficient than the processing of a single stimulus (e.g. Broadbent 1952, 1954; Mowbray 1953, 1954; Poulton 1953; Spieth, Wrtis & Webster 1954; Webster & Solomon; 1955; Moray 1969; Colavita 1971). In addition, as highlighted by Stewart (1989), when the viewers are exposed to multiple advertisements (e.g. the commercial clutters) their advertising response function is found to be adversely affected due to the interference of recently learned material with the recall of older material (retroactive inhibition) and interference of priory learned things with learning in present (proactive inhibition).

In accord with the main objectives of the present study, in the following chapter mainly the detailed reviews of the above mentioned findings, their implications to our specific research topic, and the derived hypothesis will be discussed. In addition, the following chapter provides literature evidence for the mediating role of attitude towards advertisements on brand attitudes as attitude towards embedded advertisements will also be used as an indicator of advertising effectiveness in this study.

#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.1 Television Advertising and Types of Television Advertising

In most countries in the world, broadcast television is available for free to anyone who has a television set (excluding television channels with paid subscription such as the cable TV). However, in return for receiving free entertainment and information, TV viewers are made to watch television advertisements.

Over years, in accord with the growing TV industry – such as; the introduction of color TV, availability of multiple channels, cable TV etc. – TV advertising gained more importance and popularity as well. This is mainly attributable to the fact that, TV reaches more adults each & every day than any other medium. That is the ability to reach the masses at all levels that no other single advertising can deliver. For instance; according to Bruskin Goldring's report's (2001) data, collected on a random day, %93 of total adults watched television compared to %63 who read newspaper, %76 who listened to radio, %42 who read magazines and %35 who access to internet<sup>1</sup>.

The developments regarding the TV industry and well deserved popularity of TV advertising opened room for the developments within TV advertising sector as well. Hence, many types of TV advertisements are created. These can be summarized<sup>2</sup> as;

- The traditional 30 second commercials, with variations as 5 second, 10 second, 15 second, 20 second, 45 second, 60 second etc.
- Superimposed advertisements that appear on the one fifth bottom part of the screen simultaneously with the ongoing program (especially during soccer or basketball games)
- Public service announcements

<sup>&</sup>lt;sup>1</sup> Why TV Advertising: http://www.9and10news.com

<sup>&</sup>lt;sup>2</sup> Summary of types of TV Advertising: http://www.zonalatina.com

- 30 minute or longer infomercials touting specific products & services
- Static or rotating bill boards in broadcast of live events
- Home shopping channels that are commercial in nature all time
- Product placements within the television programs, such as the soft drink placed in the hand of an actor.

It is well known that, different executions or types of advertisements have different effects on advertisement effectiveness (Laskey & Richard, 1994). Thereby, it is quite expectable that different types of TV advertisements have different effects even though the given message is the very same.

Among these TV advertisements, 20 – second traditional commercials & superimposed advertisements are the most frequently used types in Turkey. It is interesting to note that, superimposed advertisements have an extensive usage in Turkey unlike many other countries in the world (e.g. United Kingdom, USA, Australia etc.). However, as mentioned previously, to date, there is no available literature in respect to effectiveness of superimposed advertisements. Thus, with the aim of fulfilling this gap in the literature, the present study has been designed, with the aim of comparing the effectiveness of superimposed advertisements vs. traditional commercials.

#### 2.2 Measuring Advertising Effectiveness

"We test our advertising not because it costs us money but because it makes us money" (cited in Lucas & Britt, 1957).

As it implies from the statement of Ken R. Dyke (cited in Lucas & Britt, 1957) former advertising director of Palmolive, what an advertiser usually wants to know is the impression being built for his / her product or service. That is, the major concern of measuring advertisement effectiveness is about whether one advertisement will produce more or fewer sales than another advertisement. However, isolating the effects of advertising from the many other variables that produce a sale is difficult. It is often difficult to figure out the specific advertisement, which specifically contributed to sales because of the numerous factors that influence a sale. Since this is the fact, instead of concentrating on sales, many of the advertisement effectiveness researchers measure other psychological factors such as; readership, recall, consumer opinion, attention or comprehension which are assumed to be related to sales (Barban, Dunm, Krugmann & Reid, 1990). In fact, it can be well argued that, the objectives of all advertisements are psychological and the testing methods are actually psychological measures.

#### 2.2.1 The Objective of Advertisement Effectiveness Measures

According to Lucas and Britt (1957), the objective of research in advertising can be defined as, to provide information that will help to evaluate advertising strategies, various executions of the messages, and the effectiveness of the medium or media of communication so that the total effectiveness can be improved, which in turn will reflect to sales.

### 2.2.2 The Need for Multiple Measures

It is important to mention the fact there is no single best way to test advertising effectiveness due to the insufficiency of single measures in terms of covering all criteria of effectiveness. Because of this reason, there is a tendency to use multiple measures to evaluate effectiveness. However, there is no one formula for combining measures and these necessarily vary from one situation to other (Lucas & Britt, 1963). A second important point to mention is that, before a research method is selected, it is essential to have a clear definition of the problem. That is, any advertisement research with respect to effectiveness must be conducted to answer a specific problem and the appropriate method or methods must then be selected accordingly. As it is not possible to assess all aspects of effectiveness even with multiple measures, a researcher must first identify his / her essentials in line with the advertisement

objectives and develop a specific research question before selecting and combining appropriate methods.

#### 2.2.3 Copy Research

Copy research may be referred as the general method that is used to analyze and evaluate advertisement effectiveness in all stages of its creation and after its circulation. It includes both pre-testing and post-testing of the advertising message. The stages of a copy research can be summarized as follows:

1- Research prior to the development of the advertising: This initial stage of research is basically concerned with the development of the advertising ideas and the evaluation of these ideas. The past advertising experience such as the historical trends or the evidence accumulated through readership surveys are analysed for their guidance of new advertising ideas.

2- Research during the development of advertising: At the development stage of the advertisement the advertising ideas are still to be evaluated through the guidance of consumers for whom the advertisement is written. Consumer surveys and expletory studies are designed to obtain advertising guidance, so that the advertiser can keep his / her thinking in harmony with the ultimate buyer.

**3-Pretesting of the advertisements:** After building possible advertisements based upon consumer research and principles evolved from past experience, the advertisements are tested in advance of circulation. This stage includes, measurement of consumer responses after new advertisements are prepared, enabling the necessary corrections and revisions to be made before money has been spent for its circulation.

**4-The post-testing of the advertisements**: This stage, involves a check-up to determine how successful the advertisement has been and to seek clues for better performance of related advertisements in the future.

Research may be applied at any or all of the four stages in the building and testing of specific advertisements. There are five general types of research methods that can be applied either in pre or post testing stages of an advertisement according to the objective of the study. The brief definition of each is presented below:

1-Tests based on memory: These are the tests that are applied after waiting for the advertising to establish its impact, and thereby they depend upon memory. The major objectives of these tests are to assess the original noting, reading or viewing of the message and the memorability of impressions made. Recognition and recall tests are the most widely used types of memory tests designed to evaluate the above-mentioned objectives.

**2-Opinion and Attitude ratings:** Opinion methods, primarily involve the collection of ideas and individual points of view about advertisements from a carefully selected sample of people. Instead of testing materials, the consumers are provided with a scale or adjectives or nouns in order to indicate their ratings or attitudes in relation to advertising material.

**3-Concurrent methods:** The methods of checking at the time of exposure are called concurrent methods. Concurrent methods have their widest use in broadcast advertising since the precise period of exposure can be detected. These methods are usually concerned with attention and interest exhibited by the audience or they may be applied for over all appraisal of the advertising. Personal observation, the diary method, the coincidental telephone method and the mechanical method are examples of concurrent methods.

**4-Labrotary tests**: In order to test the effectiveness of advertisements before actual circulation, laboratory tests are designed consisting of groups assembled in a studio, in a laboratory, at home or in a social situation to be tested in several dimensions of effectiveness according to the aim of the study.

**5-Measures based on inquiries and sales:** As it is previously mentioned, there are difficulties in understanding the contribution of advertising to sales, thus measures based on

inquiries are employed to assess the relationship between advertising and sales. Inquiry and sales tests are basically designed aiming to relate evidence of exposure to product preference or possession.

In the present study, our major aim is to compare the effectiveness of two different executions (type of advertisement - superimposed advertisement(s) vs. traditional commercial(s)) of the same advertising messages. Thus, we are interested in the effectiveness of the type of advertisement (superimposed advertisement(s) vs. traditional commercial(s)) rather than the effectiveness of the specific advertisements or advertising messages themselves. Accordingly we identified **8 products** with two different advertisement executions (superimposed advertisement(s) vs. traditional commercial(s)) giving the very same advertising messages are kept constant in both executions (superimposed advertisement(s) vs. traditional commercial(s)), we argue that the possible differences between advertisement effectiveness measurements are attributable to the executional factors (type of advertisement - superimposed advertisement(s) vs. traditional commercial(s)) rather than to the success of specific advertisement.

It is also important to highlight the fact that, since the effectiveness of the specific advertisements are not in our particular concern; the measurements that are employed in this thesis are concerned with communication effects rather than the sales effects of each advertisement.

In line with this research objective, this thesis mainly concentrates on memorability and attitudinal effects of each execution (type of advertisement - superimposed advertisement(s) vs. traditional advertisement(s)). Also, we examined some differential aspects of each execution to shed more light on the issue aiming to attribute possible differences between two types of advertisements to specific factors. In line with this research objective, the following part of the literature review covers three important aspects, "Memory for Advertisements", "Attitude towards Advertisements" and "Traditional Commercials vs. Superimposed Advertisements". Below is the detailed review of each.

# 2.3 Memory for Advertisements

Advertising effectiveness may depend critically upon consumers' memory performance since there is a typical time delay between consumers' exposure to advertising and their opportunity to purchase the advertised brand. That is, given the fact that consumers do not necessarily make brand decisions during ad exposure, memory for advertising is essentially important (Keller, 1987). Related literature concerning memory and advertising provided strong evidence that, attentional and associative processes in memory influence advertisement information processing and that memory affect consumers' brand evaluations and choices. Thus, memorability measures of advertising effectiveness are extensively used among advertising researches whether the goal is to generate awareness, positive effect or favorable purchase intentions (cited in Krishana & Chakravati 1999, p2).

Before intriguing with memorability measures of advertisement effectiveness, we find it of importance to discuss some important memory factors in consumer behavior briefly.

### 2.3.1 Models of Memory

Basically, there are three models under the general conception of memory - multiple store, levels of processing and activation - that may shed light on the relationship between memory factors and consumer behavior. It is important to note that, none of the models are incompatible concerning that all three models of memory are consistent with the principles of a limited processing capacity and a single memory store with allocations of that capacity to the processing of incoming information. Among these models; multiple store and levels of processing approach are in our particular interest in regard to our specific topic; the effectiveness of superimposed advertisement(s) vs. traditional commercial(s). Hence, they will be utilized respectively.

#### **2.3.1.1 Multiple Store Approach**

One concept of memory that has been very influential is the multiple-store approach. This approach basically states that, there are different types of memory storage systems, each with different functions and systems. Atkinson and Shiffrin (cited in Bettman, 1979) proposed a model of this type; hypothesizing a set of sensory stores (SS), a short-term memory store (STS) and a long term store (LTS). The basic processing sequence is that, first the information passes from the sense organs to the appropriate sensory stores. Then, if the information is attended to and processed, it is transferred to STS. Finally, a portion of that information, if adequately processed can be transferred to LTM, which is hypothesized to be essentially unlimited in capacity and a permanent repository of information. Unlike the LTM, STM and SS have relatively limited capacities. That is, the information is lost from SS within fraction of a second unless the information is further processed. Similarly, if the information is not processed at all, it is lost from STM in about 30 seconds or less. At this point, one of our concerns is the amount of time required to transfer an item from STM to LTM, regarding the fact that duration of the superimposed advertisements are relatively short, limited to approximately 8 seconds. Newell and Simon (cited in Bettman, 1979) suggested that approximately five to ten seconds are required to fixate one chunk of information in LTM if one must later recall it. Further, if only recognition is required, two to five seconds may be needed (cited in Bettman, 1979, p41). Based on these findings we argue that, incoming information via superimposed advertisement(s) and traditional commercial(s) may both have an access to LTM for later recall or recognition conditional upon the fact that suitable processing performance is met.

Apart from transfer times, another important property of short-term memory is related to its limited capacity. Miller (cited in Bettman 1979) formulated the hypothesis that STM was limited, and reviewed evidence showing that approximately seven chunks of information could be processed at any one time. More recent evidence by Simon (cited in Bettman, 1979) suggested that four or five chunk capacity seems more likely. The limited number of items stems from the fact that, the attention or processing capacity necessary to rehearse these items is limited. Bettman (1979) suggested that, a brand name and all it stands for can be thought of as a chunk. It should also be pointed out that, the actual amount of underlying material that can be processed simultaneously may be expanded through formation of larger chunks. That is, several attributes can be associated with a particular brand name so that, the mere mention of the name elicits an entire gestalt. Following Bettman's conceptualisation, since an advertisement contains information related to only one brand, we regard an advertisement it self as a chunk. Based on these factors, it may be argued that, within an advertisement clutter, at most five chunks, that is to say "five advertisements" can be recalled both for traditional commercials and superimposed advertisements assuming that suitable processing is performed. Thus, we argue that regardless of the type of advertisement; viewers exposed to 7 advertisements (either 7 superimposed advertisements or 7 traditional commercials) at most five advertisements can be recalled.

Literature on verbal learning provides further support for the issue. Research on verbal learning has established the presence of a phenomenon called cumulative proactive inhibition. Simply, proactive inhibition refers to the fact that things that have been learned in the past interfere with learning in the present. Stewart (1989) stated that, research on proactive inhibition has some significant implications for the impact of commercial clutter. Stewart suggested that, the more the consumers are exposed to advertisements, the more likely the ability to retain information content from any one advertisement is declined. Similarly, things

that are more recently learned are often interfere with recall of older material. This latter type of interference is known as retroactive inhibition. As a result, Stewart (1989) concluded that, both types of interference have been documented in advertising settings and appear to influence the nature of the advertising response function. In this thesis, apart from the type of the advertisement (superimposed advertisement vs. traditional commercial) we also manipulate the number of advertisement (1 advertisement vs. 7 advertisements) both for the superimposed advertisements and traditional commercials in order to control the effects of number of advertisement on effectiveness and to further contribute to the literature regarding the issue. In addition to Stewart's identifications, Newell & Simon (cited in Bettman, 1979) suggested that, the capacity of STM is lowered if other processing demands are made. More specifically, if total part of capacity must be used for another task, the chunks of information that can be processed is reduced. The normal capacity may be reduced to a capacity of two or three chunks if other tasks are undertaken simultaneously. Consistent with this view, we expect lower recall of chunks (advertisements) for superimposed advertisements in which viewers are exposed to 7 advertisements as compared to viewer's recall of traditional commercials after being exposed to 7 traditional commercials. More specifically; we propose that, since advertisements superimposed are viewed simultaneously with the on going program the probability of viewers attending to the program and the advertisement simultaneously may result in lower levels of recall.

#### **2.3.1.2 Levels of Processing Model**

Rather than postulating several distinct memories, the levels of processing theory assumes one memory, an overall processing capacity, and the ability to engage in different levels of processing. Within this framework Craick and Lockhart (cited in Bettman, 1979) proposed that, processing incoming information is subject to limited processing capacity. In particular, they argued that, capacity can be allocated to yield various levels of processing which might range from simple sensory levels analysis to more complex semantic and cognitive elaborations of the information. According to this approach, lower levels of processing would require less allocation of capacity than the higher or deeper levels. Craick and Lockhart (1972) further argued that, deeper levels of processing are associated with more elaborate and longer lasting memory. Consistent with this view, consumers who process an advertisement's sensory features, without processing the semantic information in the advertisement and relating it to what they know about the product category, presumably will not recall the claims presented when they attempt to make a choice. In that sense, it is stated that, advertisements may encourage sensory rather than semantic processing by their very nature; for instance, background of an ad may divert attention from the message and since there is limited overall processing capacity to be allocated, only a small part of information can be processed in depth at any one time. Thus, based on theses arguments, sensory processing rather than semantic processing may be more likely for superimposed advertisement(s) concerning their relatively simpler information content as compared the traditional commercials and it is more likely for viewers of advertisements superimposed to suffer from background diversions as they will be exposed to a stimulus totally irrelevant to the advertisement as a background stage. This fact, may in turn affect the durability and recall of information adversely for viewers of superimposed advertisements.

Given the fact that memory factors can strongly affect consumer behavior, it is essential for advertisers to utilize memorability measures of advertising if they are to examine the effectiveness of a particular advertisement. Here in this thesis, we would also apply for memorability measures of advertising as a useful indicator of advertising effectiveness since it is one of our primary concerns. Below is the literature review regarding the issue.

#### 2.3.2 Memorability Measures of Advertising

Stewart (1989) stated that among the oldest and most frequently employed measures of advertising performance are the memorability measures of advertising. MacKenzie & Lutz (1989), also highlighted the same fact that, much of the pre-testing measures of advertising effectiveness has focused on the impact of the content of commercial stimuli on cognitive variables as recall of ad content, aided recall and / or recognition of copy points, brand attribute ratings and importance weights.

As Keller (1987) stated, the utility of the memory data lies in the fact that it can help to tag deficient aspects of an advertisement and indicate if an advertisement execution facilities or interferes with memory of a brand name or claim. Further, comparing recognition and recall data may suggest whether memory failures reflect encoding or retrieval deficits (cited in Krishnan & Chakravati, 1999).

Among several memorability measures of advertising effectiveness, recall and recognition measures, which will be employed in this thesis, are in our particular interest.

# 2.3.2.1 Recognition Tests

In a typical recognition test, as defined by Krishnan & Chakravati (1999), respondents determine whether or not they have previously seen the target stimulus in a specific exposure context. Thus, recognition tests include both the target stimulus and the context cue. No other cues are provided. Respondents must match the presented target stimulus to the memory trace formed at viewing the proportion of correct target identifications is a measure of recognition performance following advertisement exposure.

By providing additional cues during retrieval, apart from context and target cues, recognition performance can be influenced. For instance, respondents may be told the product category of the claim (a product category cue). Normally, recognition improves with increases in the number of facilitating cues. However in some cases, the cues may distract or

inhibit respondents' ability to discriminate between the target and the other stimuli not seen before (e.g., similar claims from the product category)

#### 2.3.2.2 Recall Tests

In recall, as stated by Krishnan & Chakravati (1999), the target is not provided during the test and the respondents must generate it from memory. The aggregate measure of recall performance is determined through the proportion of respondents' correctly retrieved target claims. These types of recall tests are known as unaided recall tests. On the other hand, recall tests may sometimes embed a cue to the target to help respondents access the memory trace as in the case of recognition tests. These latter types of tests are known as aided or cued recall tests. Such aided tests of recall differ from recognition tests in that, the target claim is not provided as a cue and the respondent must generate it from the memory. Similar to recognition, retrieval cues usually facilitate recall, but cues associated with other non-target stimuli may interfere with target recall.

#### 2.3.2.3 Comparison of Recall and Recognition Tests

According to Bettman (1979) the basic difference between recall and recognition stems from the difference in their processing type requirements. To recognize a stimulus from among a set of discriminating stimuli, information allowing one to differentiate or discriminate the previously encountered stimulus is necessary. However, in recall, information allowing one to reconstruct the stimulus is required, since the stimulus itself is not present.

According to literature, given the fact that recognition and recall require different processing, the measurement results of recall and recognition for the very same stimulus, say an advertisement, may yield different results. For instance, in several studies Gregg (1976) showed that, low frequency words are recognized better than high frequency words, perhaps

because the former are relatively unique (cited in Krishnan & Chakravati, 1999). In contrast, high frequency words are recalled well than low frequency words, which seems attributable to the fact that, they are more connected with other words. That is, as indicated by Bettman (1979), low frequency words being unusual are easier to discriminate from others; high frequency words, being familiar, are easier to reconstruct. Contingent upon this view, it is argued that, advertisement information that stands out may be better recognized than more commonplace information. On the other hand, recall of commonplace information may be higher than that of unique information.

In conclusion, the related literature regarding both recognition and recall measurements suggested that, employing recognition and recall measurements simultaneously enhances the diagnostic judgments about effectiveness of a particular advertisement. The possible indications of different recall and recognition scores summarized by Krishnan & Chakravati (1999) are as follows:

Low scores on both recall and recognition tests indicate that, information is not encoded in memory, and thereby, is unavailable. Low recall but high recognition scores suggests that, the information is encoded, there by available but not accessible because of the lack of sufficient activation potential. Finally, high scores on both recall and recognition would indicate that retrieved information is evidently both available and accessible.

However, it is important to point out the fact that, memory tests mainly measure exposure and recall of ideas rather than the actual predisposition to buy it (Akyamaç, 2002). In a review of studies that examined the relationship between recall and preference, Gibson (cited in Higie & Sewall, 1991) reported that seven of eight studies did not find significant correlation between the two variables. The correlations across product categories ranged from .00 to .32. Similarly, Stewart (1989) found a .31 correlation between recall and persuasion.

Since this is the fact, in addition to memory for advertisement, attitude towards advertisements is also in our particular concern. Below, we present the literature review of attitude towards advertisements briefly.

# 2.4 Attitude Towards Advertisements

#### 2.4.1 Definition of Attitude Towards Advertisement

Allport (cited in Oskamp, 1977) defined an attitude as, "a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related." Mitchell and Olson (1981) further defined attitude as an individual's internal evaluation of an object such as a branded product. Mitchell and Olson (1981) have also highlighted the possible relation between attitudes and consumer behavior stating that; since attitudes are considered to be relatively stable and enduring predispositions to behave, they should be useful predictors of consumers' behavior toward a product or a service.

## 2.4.2 Does Attitude Towards Advertisements Mediate Brand Attitude?

Given this fact, recent research in advertising and marketing have focused renewed interest on consumers' affective reactions to advertisements, as opposed to purely cognitive reactions, as having important diagnostic capabilities. In particular, researchers have proposed that attitude towards advertisement is a mediating influence on brand attitude and purchase intentions, and thereby consumer behavior.

Mitchell and Olson (1981) have defined attitude toward the ad (Aad) as "an affective construct representing consumers' feelings of favorability / unavoidability toward the ad." Similarly Lutz (1985) defined attitude towards advertisement as "a predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during a particular exposure occasion." Gresham and Shimp (1985) have further described attitude toward advertisement as "an attempt to influence consumer choice through creating a favorable

attitude toward the advertisement that may transfer to the advertised brand and influence choice behavior." As it implies from Greshams and Shimps' description, one of the basic concern of the recent literature concerning affective reactions to advertisement is whether the construct of attitude toward the advertisement acts as a mediator and affects advertising effectiveness and thereby brand attitudes and purchase intentions. The literature review presented below indicates evidence for the mediating role of attitude towards advertisements on brand attitudes.

Consistent with the field's general preoccupation throughout 1970s with the consumer as a cognitive information processor (MacKenzie & Lutz, 1989) Fishbein (cited in Mitchell & Olson, 1981) proposed a causal flow among three cognitive variables: beliefs, evaluations or attitudes, and intentions. According to this view, a marketing stimulus such as an advertisement affects consumers' beliefs first. Then, the influenced salient beliefs mediate the marketing variable's effect on attitude, and attitude in turn mediates subsequent effects on behavioral intentions. In particular, the presumption is that beliefs mediate all effects on attitude formation or attitude change. Mitchell and Olson (1981) conducted an experiment questioning Fishbein's model in the sense that whether beliefs about product attributes are the only moderator of brand attitude. The beliefs-cause-attitudes proposition was contrasted with two alternative models of attitude formation, sheer repetition and classical conditioning, neither of which treats beliefs as a causal mediator. Their results indicated that, beliefs about product attributes were a major mediator of advertising content that affect on attitudes, but not intentions as predicted by the causal flow of the Fishbien model. Additionally, although product attribute beliefs did mediate message effects on attitude theory, such beliefs do not appear to be the only mediator. Rather, a measure of attitude toward advertisement partially mediated the advertising effects on a particular brand.

Gardner (1985) has examined the possible mediating effect of brand related beliefs and attitude towards advertisement on brand attitudes under different processing sets. They classified processing sets as either directed toward evaluation of the advertised brand (brand sets) or directed to some other goal such as enjoyment or evaluation of the advertisement for its own sake (non-brand sets). Their research findings indicated that, attitude toward the advertisement and brand related beliefs are related positively to attitude toward the advertised brand under both brand and non-brand conditions. Secondly, brand related beliefs are more significant mediators of brand attitude under a brand set condition than under a non-brand set condition. And finally; attitude toward advertisement mediates brand attitude to an approximately equal extent under both brand and non-brand set conditions.

Homer (1990) claimed that, the processing of brand evaluation versus non-brand evaluation closely parallels the elaboration likelihood model's (ELM) central versus peripheral route. Similar to Gardner's brand evaluation vs. non-brand evaluation processing, Elaboration likelihood model postulates that, formation of an attitude or an attitude change may occur via either peripheral route or central route (Petty & Cacioppo, 1989). Attitude formation and change via central route results from a person's careful consideration of information that s/he feels central to the true merits of a particular attitudinal position. In contrast, attitude formation or change via peripheral route does not stem from an individual's personal consideration of pros and cons of an issue, rather it stems from the attitude issue's or object's being associated with positive or negative cues, or stems from a simple inference that the person makes about the merits of the advocated position based on various simple cues in a persuasion context. For instance, rather than carefully evaluating the issue relevant arguments, a person may accept an argument or message simply because it was presented during a pleasant lunch or because the source is an expert (Petty, Caccioppo & Schumann, 1983).

Thus, based on the finding of Gardner (1985), stating that attitude towards advertisements mediates brand attitude to an approximately equal extent under brand and non brand set conditions, it may be well argued that, attitude towards advertisements mediates brand attitude to an approximately equal extent regardless of under which route the advertisement is processed. That is, via the mediating effect of attitude towards advertisement(s) in respect to brand attitude formation or change is expectable both under central route and peripheral route. In that sense; we assume that, even if the viewers of superimposed advertisement(s) and traditional commercial(s) engage in different kinds of processing sets in response to advertisements (brand evaluation processing / central route vs. non-brand evaluation processing / peripheral route processing), attitude towards advertisements mediates brand attitude formation or change for both types of advertisements to an equal extent.

# 2.4.3 Structure of the Causal Relationship Between Attitude Toward Advertisement and Brand Attitude

Given the fact that, attitude towards advertisement has a mediating role on attitude toward the brand, another research stream has attempted to specify more explicitly the causal relationship among attitude towards the advertisement and the other measures of advertising effectiveness. That is, determining the mediational process by which the attitude toward the advertisement construct influences consumers' attitudes and behavioral intentions became a central issue for advertising theory and research which in turn may shed further light on the mediating role of attitude towards advertisements on brand attitudes. Several hypotheses designed to rule out mechanisms, which might account for this linkage (e.g. Mac Kenzie, Lutz & Belch, 1986; Gresham & Shimp, 1985; Homer, 1990).

#### 1) The Affect Transfer Hypothesis (ATH)

The Affect Transfer Hypothesis posits a direct one-way causal flow from attitude toward advertisement to attitude toward the brand has received the most attention in the literature (e.g. Gardner 1985; Mitchell & Olson 1981).

Mitchell & Olson (1981) found that attitude towards advertisement explained significant variance in brand attitudes beyond that contributed by measures of brand beliefs and evaluations. Similarly Moore and Hutchison (cited in Mac Kenzie, Lutz & Belch, 1986). observed a positive relationship between attitude towards the advertisement and attitude toward the brand, though the effect weakened over time

As highlighted by Gresham and Shimp (1985), the affect transfer hypothesis holds a classical conditioning approach in explaining the relationship between attitude toward advertisement and brand attitude formation. Thus, Gresham and Shimp (1985) argue that, an advertised brand may elicit, after repeated pairing with an affectively - valanced advertisement, the same affective response as the advertisement itself. However, research evidence supporting such a mechanism is meager, as Gresham and Shimp also failed to fully demonstrate a classical conditioning mechanism operating.

Another research finding provided by Park and Young (cited in Mac Kenzie, Lutz & Belch, 1986) may shed light to the above discussed issue. Park and Young reported that, attitude toward advertisement dominated cognitive responses in the prediction of attitude toward the brand under low involvement and affective involvement conditions; however, under conditions of high cognitive involvement, attitude toward the advertisement did not have a significant effect on attitude toward the brand. This finding may indicate that; the classical conditioning mechanism may be operating under low and affective involvement conditions but not under conditions of high cognitive involvement.

To sum up, it can be well argued that the affect transfer hypothesis has found support from past researches at least for low and affective involvement conditions. However, there are other plausible structural specifications that have received little research attention.

## 2) The Dual Mediation Hypothesis (DMH)

The dual mediation hypothesis specifies an indirect flow of causation from attitude toward the advertisement, through brand cognitions to attitude toward the brand in addition to the direct effect postulated by affect transfer hypothesis. That is consumers affective reactions to an ad influence their propensity to accept the claims made in the advertisement on be half of the brand. Thus, the indirect causal flow from attitude toward the advertisement to attitude toward the brand through brand cognitions represents that; consumers' attitude towards the advertisement can enhance or diminish the acceptance of message content.

According to Mac Kenzie, Lutz & Belch (1986); dual mediation hypothesis' inclusion of the link from attitude toward the advertisement to brand attitude departs from ELM posited by Petty and Caccioppo. ELM's postulated linkages as either from attitude toward the advertisement to brand attitude or from brand cognitions to brand attitude are anticipated to vary under peripheral and central processing modes respectively. However; as Mac Kenzie, Lutz & Belch (1986) argued, the dual mediation hypothesis can be viewed as asserting the alternative possibility that, central and peripheral processes are intervened rather than substituted for one another. Yet, concerning the fact that; Petty and Caccioppo (cited in Homer, 1990) supported the notion that "some variables have multiple effects on information processing and that peripheral and central processing may operate simultaneously" it can not be concluded that the dual mediation hypothesis contradicts with elaboration likelihood model.

### **3)** The Reciprocal Mediation Hypothesis (RMH)

The reciprocal mediation hypothesis is essentially a balance theory account of the causal relation between attitude toward the advertisement and attitude toward the brand. Heider (1946) postulated that people attempt to maintain "balanced" cognitive relations. According to Heider "a balanced configuration exists if attitudes toward the parts of a causal unit are similar" (cited in Heider, 1946). The implications of balance theory on consumer behavior suggest the possibility that attitude toward advertisement and attitude toward the brand are mutually exclusive. In that sense, cognitive causality can be achieved by holding a favorable attitude toward both the advertised product and toward the advertisement it self.

Thus, the reciprocal mediation hypothesis posits a reciprocal relationship between attitude toward the advertisement and attitude toward the brand, with causation flowing in both directions. Moreover, the strength of the causal flows is speculated to be varying across consumers and situations. One possibility is that, in new product introduction, one would expect a relatively stronger flow from attitude toward advertisement to brand attitudes attributed to the fact that, advertisement may represent the first exposure of the consumer to the brand. On the other hand, for mature brands with which consumers have prior experience, prior brand attitude may be seen as exerting considerable influence on consumer's reactions to advertising.

### 4) The Independent Influence Hypothesis (IIH)

The independent influence hypothesis assumes no causal relationship between attitude toward the advertisement and brand attitudes. This approach follows Howard's (cited in Homer, 1990) argument of two attitudinal constructs: an evaluative element of the brand concept and impersonal attitude. Brand concept was defined as the subjective meaning attached to the brand by a consumer and is made up primarily of perceptions of the motive related properties of the brand (e.g., product attributes). On the other hand, impersonal attitude was defined as the representation of consumers' feelings about the conditions of purchase. According to Mac Kenzie, Lutz & Belch (1986); brand attitude corresponds to evaluative component of the brand concept whereas impersonal attitude correspond to attitude toward the advertisement.

Thus, Horward (cited in Mac Kenzie, Lutz & Belch, 1986) postulated that two attitudinal constructs would exert independent causal influence on intentions; rejecting any direct or reciprocal causation between brand concept and impersonal attitude.

Mac Kenzie, Lutz & Belch (1986) examined the relative merits of these four alternatives with a data collected in a commercial pre-testing. Their results indicated that, dual mediation hypothesis is the superior structural model of the four alternatives tested. More specifically; dual mediation hypothesis is said to be a better representation of the mediating role of attitude toward the advertisement than three alternative models. Thus, it is concluded that, attitude toward the advertisement construct has both a direct effect on brand attitude and an indirect effect on brand attitude through brand cognitions. Furthermore, in accord with the prior findings (e.g. Gardner 1985; Mitchell and Olson 1981); Mac Kenzie, Lutz & Belch (1986) stated that, attitude toward the advertisement is a potentially important mediator of brand attitude formation, especially for new brands in low importance product classes.

## 2.4.4 Attitude Towards the Program and Attitude Towards Embedded Advertisements

Recently, program environment variables have gained importance and popularity in advertising effectiveness research settings with respect to the fact that; TV advertisements are embedded in a wide variety of program environments. Thus, it is quite expectable that, these environments affect the way the advertisement will be attended to and processed thereby memory for and attitude toward advertisements.

Since this is the fact, we also measured the attitude of the viewers with respect to the program (the movie) in which the advertisements are embedded, concerning that; the viewers

of the traditional commercial(s) will be interrupted via a commercial break whereas, the viewers of superimposed advertisement(s) will be exposed to the movie as a whole without any interruption or from an alternative perspective without taking any break.

In relation to this issue; Schumann, Thorson and Rosen (1989) posits that program related need for continuation varies from one person to another. That is one person may have a high need of program continuation while another might have a need to have the program interrupted by a brake.

Therefore, based on Schumann, Thorson & Rosen's proposal (1989), with respect to program related attitudes, we do expect individual differences but not at a significant magnitude and direction.

Likewise, with respect to attitude towards embedded advertisements we expect individual differences varying according to the need for continuation or need for program interruption level of the viewer, but again not at a significant magnitude and direction.

## 2.5 Traditional Commercials Versus Superimposed Advertisements

There is no literature specific to the comparison of traditional commercials vs. superimposed advertisements in terms of effectiveness. Thus, this thesis would be a pioneering one examining this specific topic. Furthermore, to our knowledge, there is no literature providing information specific to the effectiveness of superimposed advertisements or advertisements superimposed in general. Yet, we identified some critical factors, which might potentially be affecting the effectiveness of these advertisements over one another, and composed our literature review accordingly.

### **2.5.1 Zapping Behavior**

We identified zapping behavior as an important indicator in evaluating the effectiveness of traditional commercials versus superimposed advertisements, in the sense that the latter seems leaving no room for commercial zapping. That is, if the results of this

study reveal any difference between the effectiveness of superimposed advertisement(s) and traditional commercial(s) on recall, recognition or attitude dimensions; one potential explanation for this may be the withdrawal of zapping behavior via superimposed advertisements. Below is what the literature suggests on the issue.

The majority of related prior studies regarding the zapping issue have focused on the description of zapping behavior (e.g., Kaplan, 1985; Heeter and Greenberg, 1985) with attention given to profiling the zappers and determinants of zapping behavior (e.g., Cronin and Mennely, 1992) Although rare in case there are also studies which specifically address the impact of zapping behavior on television advertising (e.g., Zufyden & Pedrick, 1993).

As stated by Zufryden, Pedrick (1993) over the past decade, there have been growing concerns in the advertising industry about the potentially deleterious effects of consumer video technology on the effectiveness of television advertising. In particular, the growth of cable television programming, the penetration of VCRs, and the remote control operated TVs all suggests the possibility of significant losses in the effectiveness of television commercials.

## 2.5.1.1 Definition of Zapping Behavior

Numerous different definitions of the "zapping" concept or switching behavior have been made. Van Meurs (1998) indicated that, these differences do not seem to be caused so much by interpretations in regard to the contents of this concept but rather are due to differences in the methods of measuring used and the further treatment of the results of the research.

The term zapping has been usually used to connote "channel switching" (Kaplan, 1985), "fast forwarding of videotaped commercials" Tauber (cited in Cronin & Menelly, 1992) or "physically leaving the room". Likewise, Ching Biu (cited in Cronin & Menelly, 1992) defined zapping as " a commercial avoidance where individuals viewing television

programs switch channels or physically leave the viewing room or concentrate on doing some other things while the commercial is being broadcasted".

#### 2.5.1.2 Determinants of Zapping Behavior

Cronin and Mennely (1992) suggested two alternative propositions that might explain the zapping behavior. First alternative is the discrimination proposition, which is postulated under information processing models. The discrimination proposition is that zapping behavior is a result of the cognitive processing in which the viewing of a commercial is seen as an information-processing problem. In the various models of information processing which have been applied to television commercials, exposure is typically followed by an attention phase. Engel, Blackwell, and Miniard (cited in Cronin and Mennely, 1992) defined attention as the allocation of information processing capacity to a stimulus. Zapping then is viewed as the withdrawal of attention from commercial and the initiation of a search process for other, more acceptable programming. The discrimination proposition suggests that this withdrawal is the result of cognitively processing information from the opening portion of the commercial. The second alternative suggested is the avoidance proposition based on learning theory. According to this view, it is possible that, some viewers might have learned to dislike commercials from prior experience. This proposition suggests that no processing of information is required the mere commercial is sufficient to initiate zapping. Cronin and Mennely (1992) tested these propositions both with a pilot study conducted in the laboratory and observation in the field with a larger sample. The results were in accordance under both conditions. Thus they concluded that, high percentage of the commercials is zapped indicating that zapping may be substantially reducing the audience size. Secondly, they reported that, nine out of ten commercials were zapped in an avoidance mode suggesting that, it is not the content of the commercial that causes it to be zapped but its very presence.

Alternatively, Siddarth, Chattopadhyay and Amitava (1998) argued that, probability of zapping a commercial is influenced by the perceived value of the commercial and perceived value of alternatives. They hypothesized that, the lower the advertisement value, the more likely that it is zapped. Further, they identified factors determining whether an advertisement is valuable to a consumer as; household category purchase history, repetition of the advertisement, advertisement usefulness (brand differentiating message) and length of the commercial. The criterion for the perceived value of alternatives is identified as pod location within a program. The results yielded that, consumers' who make purchases in the advertised product category are more likely to be interested in viewing the advertisement and less likely to zap it. Secondly, the likelihood of zapping a commercial is found to be decreased with initial exposures, reaching a minimum when the advertisement is fully understood. However, zapping probability is found to be increased after additional exposures due to the boredom effects. Thirdly the results showed that, advertisements that convey brand-differentiating message are less likely to be zapped. Fourthly, the results yielded no significant differences in zapping probabilities concerning the length of the commercials. Finally, the results indicated significantly higher likelihood of commercial zapping during pods around the hour / half hour compared with other times during the program.

### 2.5.1.3 Profiling the Zappers

Heeter and Greenberg (1985) have analysed the data come from five different surveys conducted in past two years involving over 1500 adults and 400 children and profiled the zappers as follows:

Men are found to be more likely than women to report zapping commercials. In terms of age the results indicated that, young adults report more zapping than older adults. Another finding of Heeter and Greenberg was that, zappers do not differ by income, education, marital status, household size, or number of children. Furthermore, it is found that zappers do not own more technology toys than nonzappers. That is, zappers and non-zappers equivalently purchase VCRs, videodiscs, video games or home computers. However zappers are found to be differing in the extent to which they have remote control. Also, contingent upon the analysis of their findings, they identified primary reasons for channel switching as **variety seeking** and **avoidance of commercials**.

In addition to these Heeter and Greenberg (1985) have also analysed the way zappers watch TV. Accordingly zappers are found to be doing less planning before watching TV. That is, they are more likely change channels before deciding what to watch. Additionally, zappers are found to be less likely to watch a show from start to finish and more likely to change channels between shows and during commercials. Finally, zappers are found to be more likely to watch and follow more than one show.

Apart from the given analysis by Heeter and Greenberg, Zufryden & Pedrick (1993) have also addressed the same issue and contrary to findings reported Heeter and Greenberg; they identified that, VCRs, household income and household education have significant effects on zapping behavior. In particular; their results revealed that, households that use VCRs to record programs for later viewing are likely to zap more often than other households. Secondly, households with higher income are found to be more engaged in commercial zapping activity especially in prime time. Finally, households containing college educated members showed positive increases in overall zapping behavior. Apart from these, their finding regarding remote controller was in accordance with Heeter and Greenberg's findings. That is, in both studies, presence of remote control devices appeared to be significantly increases the tendency for households to engage in zapping.

### 2.5.1.4 Zapping and Its Impact on Advertising Effectiveness

The previous researches in which the two variables, zapping and advertising effectiveness were linked is relatively less. Thus, due to the sparseness of researches linking the two variables little is known about the effect of zapping on advertisement effectiveness.

Zufyden & Pedrick (1993) analysed this issue, which is relatively ignored by other researchers. Zufryden and Pedrick claimed that, zapping can influence effectiveness in two ways. First, if a commercial is totally avoided or missed, advertisements will have no effect, as they are not viewed. Second, a different kind of effect is expected if the viewer is exposed to only a portion of an advertisement as a consequence of zapping. In particular Zufryden & Pedrick (1993) addressed the latter issue in their study. That is, the effect of partial advertising exposures as compared to the effect of non-interrupted exposures was addressed.

Their data consisted of store-level causal and household-level purchase data along with TV commercial exposure. Thus, unlike other studies of advertising effectiveness, they measured effectiveness on brand choice and purchase related dimensions. It is also important to mention that, they defined a zapped exposure as an exposure, which is zapped into and out of advertising during its broadcasts but viewed at least five seconds. Surprisingly, their findings yielded that; zapped commercials were significantly more effective than non-interrupted advertisements. Zufryden & Pedrick (1993) attributed this phenomenon to the potential heightening of viewer attention to the TV set at the time of a zap which is likely to lead to more active processing of advertising around the time of the zap and consequently to greater effectiveness of those advertisements.

Another study concerning the same issue was reported by Greene (1988). Greene used a survey-based measure of day after TV commercial recall as well as self reported measures of zapping from a sample of viewers. The results revealed that, zappers show only a slightly reduced commercial recall of 3 percentage points relative to non-zappers Similar to the inference made by Zufryden & Pedrick. Greene (1988) has concluded that zapping behavior itself may have a positive impact on advertising recall in that it forces viewing action back to the TV set when the viewer might not otherwise be attentive.

Concerning the literature findings and their implications to our specific topic, neither the superimposed advertisement(s) nor the traditional commercial(s) seem significantly in a superior position as compared to the other. First, contingent upon the literature findings, the underlying factor that causes zapping behavior seems both attributable to variety seeking as a consequence of boredom and to avoid advertising as a consequence of prior learning. In both conditions, both type of advertisements (superimposed advertisement(s) vs. traditional commercial(s)) seem to suffer from zapping behavior. More specifically, concerning the fact that zappers are variety seekers and have a tendency to watch more than one program simultaneously, it is possible for them to engage in channel switching behavior to view other programs both during the commercial break and during the ongoing program they were previously watching. This indicates that, in this particular condition both the traditional commercials and superimposed advertisements are at equal risk of not being viewed. Furthermore, if the primary factor of zapping behavior is attributed to avoidance mode, this factor may equally be valid for both traditional commercial(s) and superimposed advertisement(s). That is, television viewers may have learned to avoid not only traditional commercial(s) but also superimposed advertisement(s) from prior experience. Although, the former is supported by several researches there is no specific research addressed the issue for the latter one. Yet, it is still a possibility.

However, it is also likely that, the viewers may not be in an avoidance mode toward superimposed advertisement since it does not withheld the viewer from the program that they are watching. As previously mentioned; as we expect need for continuation to vary individually, we expect the liking or avoidance mode toward both traditional commercial(s) and superimposed advertisement(s) to vary individually as well.

On the whole, based on these literature findings we see neither the superimposed advertisement(s) nor the traditional commercial(s) in a superior position as compared to each other. Thus, zapping behavior is not studied in this present thesis.

## 2.5.2 Duration of the Advertisement

On the average we identified the duration of the superimposed advertisements and traditional commercials as being 8 seconds and 20 seconds, respectively. We previously mentioned that approximately five to ten seconds are required to fixate one chunk of information in LTM if one must later recall it (cited in Bettman, 1979). However it is also well known that, the further the information is processed, the more likely it will be recalled later. Given this fact, both the traditional commercials and superimposed advertisements seem in a disadvantageous position concerning that the information processing time for the viewer is limited and determined by the advertiser rather then the viewer it self, we further suggest that the advertisements superimposed are likely to suffer more from this pitfall concerning their relatively shorter duration. Thus, we expect traditional commercial(s) to be superior as compared to superimposed advertisement(s) on this dimension in terms of effectiveness assuming the fact that suitable processing is performed for both types of advertisements.

There is no previous research specifically comparing the effectiveness of superimposed advertisement(s) and traditional commercial(s) with respect to duration. However, there are several researches, which compared the varying duration of **same type of commercials** in terms of effectiveness. Although, these researches do not specifically compare superimposed advertisement(s) and traditional commercial(s), it may still have some implications for the issue. Below we presented the literature review.

Pieters and Bijmolt (1997) hypothesized that, duration of the commercials has a positive effect on brand name recall. They based their hypothesis on several theories from the previous literature. Theories from multiple research streams predict that duration has a positive impact on the distinctiveness of the advertisements memory trace hence on its retrieval likelihood. Based on the total time hypothesis that "the amount of the time devoted to learning" longer compared to shorter television commercials provide viewers with more opportunity to attend to and process the message, thus enhancing viewer learning. In addition, longer commercials facilitate learning by allowing the same information to be repeated more frequently within a single exposure than shorter commercials do.

Pieters and Bijmolt's (1997) research results revealed that, brand names in longer commercials are recalled significantly better, both unaided and aided, than brand names in shorter commercials.

Similarly, Patzer (1991) examined the differences between 15-second and 30-second versions of the same commercials in terms of effectiveness as defined by brand recall and brand attitude. The results yielded that, overall 30-second commercials were approximately 20 percent more effective than 15-second commercials. In particular, brand recall was found to be higher for viewers exposed to 30-second commercials than those who saw a 15-second commercial. On average, it is stated that, 15-second commercials was 79 percent as effective as a single 30-second commercial. Additionally, viewers exposed to 30-second commercials than those exposed to 15-second commercials have generated more favorable attitudes towards commercials. On average, 15-second commercials were found to be as effective in terms of brand attitude as single 30-second commercials.

As a result Patzer (1991) concluded that, 30-second commercials are more effective than 15 second commercials in both recall and attitude dimensions. Yet, concerning the fact that the differential effectiveness is approximately 20 percent less for 15-second commercials, they suggested that, if a marketing manager is confronted with media costs for 15- second time slots that are greater than 80 percent of the media costs for 30- second time slots, it is advantageous to allocate budget expenditures in favor of 30- second commercials. But if the media costs for 15- second time slots are less than 80 percent of the media costs for 30 seconds time slots, it is advantageous to allocate budget expenditures budget expenditures in favor of 15- second commercials.

Similarly Mac Lahan and Siegel (1980) suggested reducing the cost of commercials by use of time compressions. Concerning the fact that, through the 1970s most television commercials were 60 seconds -now nearly all are 30- seconds; Mac Lahan and Siegel (1980) questioned weather another reduction be reasonable. Using a technique called time compression they speedup 30 second commercials 25 percent which shortened the commercials to 24 seconds. They also highlighted the fact that, time compression maintains the normal balance between pauses and speech and is subtle change that is neither noticeable in audio nor video. Thus they composed a commercial clutter consisted of four 24- second commercials and 12 second commercials. The commercials were embedded in program that was recorded from the air. Two commercial breaks were dubbed in to the program. They divided subjects into two groups. First group viewed the four 30- second commercials in the commercial breaks. Subjects in the second group viewed the same four commercials in the time compressed form plus two additional commercials (12- second commercials). The results were analysed via aided and unaided recall measures. The measures of unaided recall measures revealed that, on the average, recall for the time compressed versions were 36% greater than the recall for the 30 seconds version. Similarly, the results of aided recall indicated that, on the average recall for compressed versions were 40% greater than the recall for 30 seconds versions. Since the 12-second commercials were seen only in the time compressed form, their measures were individually assessed. The aided and unaided recall

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scores were individually assessed. On the average the aided and unaided recall scores for theses measures were %47 and %38 respectively which were interpreted to be quite satisfactory indicating that, 12 seconds is enough time to make memorable measures.

In order to interpret these results, Mac Lahan and Siegel (1980) have also developed some suggestions. Their first suggestion was novelty hypothesis stating that, the viewers' perceptions of time compressed commercials as novel, different from those they had seen before may possibly be resulted in viewers' paying closer attention to those advertisements. However, pattern of the results revealed that, the first commercial in the clutter was least benefited, indicating that novelty was not a factor. Their second explanation was based on viewer effort hypothesis stating that, the faster commercials were possibly more difficult for the viewers to understand, hence the viewers had to expand more effort and gave closer attention to commercials. However, concerning that comprehension remains nearly constant at speeds up to 100% faster than normal, a compress by only 25% is said to be within the capacity of human beings to understand and comprehend easily. Furthermore, based on the Venkatesan and Haaland's findings that television manipulations requiring viewers to expend additional effort resulted in lower recall scores, Mac Lahan and Siegel (1980) concluded that, higher levels of overall effort does not necessarily lead to higher recall. Their final conclusion based on viewer preference hypothesis was that, because time compression increases viewer liking, it could result in higher levels of attention and consequent increase in recall scores.

On the whole the previous research results suggested the effectiveness for shorter commercials may depend on how short the commercial is which may suggest an optimal commercial length. In the study by Mc Lahan and Siegel (1980) 24- seconds commercials were found to be superior over their 30-seconds versions. On the other hand, Patzer's (1991) study in which, he compared 15- seconds commercials vs. 30- second commercials, concluded that; overall 15- seconds commercials were 20% less effective than their 30

seconds versions. Concerning the relatively more corresponding duration of compared commercials duration Patzer's (1991) to average duration of superimposed advertisements vs. traditional commercials, we preferred to interpret the issue according to their research findings. As a result, due to their longer duration we expect traditional commercial(s) to be superior over superimposed advertisement(s) in respect to effectiveness. More specifically, we expect higher scores of recall and recognition by viewers exposed to traditional commercial(s) compared to viewers of superimposed advertisement(s).

## 2.5.3 Attention & Involvement

The effectiveness of advertising message is widely believed to be moderated by audience involvement (Celsi & Olson, 1988). According to the literature the underlying reason for this factor is attributable to the fact that, involvement as a **motivational state**, affects the extent and focus of consumers' attention and comprehension processes, thus specific meanings that are produced. More specifically stating, involvement plays a motivational role in consumers' attention and comprehension processes, thereby affecting behavior and cognition (Celsi & Olson, 1988).

Concerning the differences in modalities of superimposed advertisements and traditional commercials, this finding may have great implications to our research topic. That is, the superimposed ads and commercials may be prompting different levels of audience involvement by their very nature, and thereby may be affecting the effectiveness of the advertising messages in different ways and directions. Below is the literature review covering some important points of involvement & attention processes in relation to our research topic.

### 2.5.3.1 Definition of Involvement

Although numerous different conceptualizations of involvement has been suggested, there seems to be an underlying theme focusing on personal relevance found in the literature (e.g. Sherif & Hovland 1961; Krugman 1965; Houstan & Rothschild 1977; Ostrom & Brock 1968; Mitchell 1979; Brunkrant & Sawyer 1983; Petty & Caciappo 1981)

Regarding the advertising domain, involvement can be conceptualized as "the extent of advertisement relevance to the receiver in terms of being personally affected hence motivated to respond to the advertisement (Zaichkowsky, 1986). More specifically, involvement generally refers to a mediating variable in determining if the advertisement is effectively relevant to the receiver.

## 2.5.3.2 The Function and Affects of Involvement on Persuasion and Behavior

Although the researchers are in consensus concerning the definition of involvement, there seems to be some disagreements regarding theories on the effects of involvement on persuasion and behavior.

Most of the early research on involvement argued that; high involvement is associated with resistance to persuasion (cited in Petty & Cacioppo, 1989). The explanation derived from social judgment theory is that, highly involved persons exhibit more negative evaluations of a message because high involvement is associated with an extended latitude of rejection. Thus in coming messages on involving topics are thought to have an enhanced probability of being rejected because they are more likely to fall within the unacceptable range of a person's implicit continuum (Petty & Cacioppo & Schumann, 1983). However, an important complementary finding for this notion was that; mostly for counterattitudinal and not proattitudinal issues high involvement is found to be associated with increased resistance.

Consistent with assertions of social judgment theory; Wright (cited in Zaichkowsky, 1986), Rothschild & Ray (cited in Zaichkowsky, 1986) provided support for the notion that, advertising actually influence behavior when the subject of communication was of low involvement to the receiver. Like wise, Robertson (Greenwald & Leavitt, 1984) noted that, even though consumers might show much impact of advertising communications, they might be induced more easily than high-involved consumers to try a new product or brand.

Krugman (cited in Petty & Cacioppo & Schumann, 1983); has proposed an alternative view that has achieved considerable recognition among consumer researchers. According to Krugman's view, increasing involvement does not increase the resistance to persuasion; rather it shifts the sequence of communication impact. Krugman suggested that, with high involvement, a communication should act most directly to modify beliefs (that is, verbalizable propositions). By contrast, with low involvement the impact should be more on perceptions (that is sensory organizations, such as brand logos or package figurations) and should occur more gradually, being effective only with repeated exposure (Greenwald & Leavitt, 1984, p582). Thus; under high involvement a communication is likely to affect cognitions, then attitudes, and then behaviors, whereas under low involvement, a communication is more likely to affect cognitions, then behaviors, and then attitudes

In sum, Krugman's theory highlights the fact that; communication effects can be expected with either high or low involvement but with differing sequence and effect.

A more recent and comprehensive stream of research into message response involvement was undertaken by psychologists Petty and Cacioppo from their Eloboration Likelihood Model of attitude change. The ELM contends that as an advertising message or product increases in personal relevance or consequences it becomes more important and necessary to forming a reasoned or veridical opinion. Thus, people are motivated to devote the cognitive effort required to evaluate the true merits of an issue or product when involvement is high rather than low. Additionally, Petty & Caccioppo argued and verified that, different variables affect persuasion under high and & low involvement conditions. For instance, the quality of the arguments contained in a message is found to be having a greater impact on persuasion under conditions of high rather than low involvement. On the other hand, peripheral cues such as the expertise or attractiveness of a message source have had a greater impact on persuasion under conditions of low rather than high involvement (cited in Petty, Cacioppo & Schumann, 1983).

To sum up; accordingly to Petty & Cacioppo's view under high involvement conditions people appear to exert the cognitive effort required to evaluate the issue relevant arguments presented, and their attitudes are a function of this information processing activity. On the other hand; in low involvement conditions, attitudes appear to be affected by simple acceptance and rejection cues in the persuasion context and are less affected by argument quality.

In conclusion; the literature findings suggest that, although the sequence of communication effects and used message cues may differ according to involvement levels; attitude formation or change may occur both in high and low involvement conditions. However, it is also important to highlight the fact that increases in involvement is associated with qualitatively distinct forms (levels) of cognitive activity that require increasing amounts of attentional capacity and produce increasingly durable effects on memory and attitude (Greenwald & Leavitt, 1984).

Further, involvement has motivational qualities that influence not only cognitive processes, such as attention and comprehension, but also overt behaviors such as shopping or consumption activities.

### 2.5.3.3 Conditions for Involvement & Attention

In the preceding part; we mentioned the close relationship between involvement & attention processes. That is, the more the subjects are involved with a message the more they are likely to devote attentional capacity to the message contents and to process that information at deeper levels (cited in Park & Young, 1986).

Thus, given this fact, it is not surprising that the factor that affect involvement & attention are the very same.

The factors proposed to precede involvement & attention processes have been studied & categorized by many researchers (e.g. Houston & Rothschild 1978; Richins & Bloch 1986, Zaichkowsky 1985, Peter & Olson 1987, Mackenzie 1986)

According to the literature, there seems to be a consensus in the distinction of these factors as either being situational or intrapersonal determinants.

The intrapersonal determinants are basically the factors that are related to the characteristics of the person. According to Zaickhowosky (1986), a person's inherent value system, along with his / her unique experiences, determines whether the person is involved with a particular object.

Likewise, Pillsbury (1973) highlighted that, the training & experience of the individual, the social forces which have acted upon him, and his inherited characteristics determine the direction & amount of attention that a person devotes to a particular object. Pillsbury argued that; people attend more easily & frequently to the objects most closely related to the great mass of their experience and each experience prepare the way for another.

Thereby, what to attend and the meanings that are generated from a message may greatly differ from one person to another.

However, other than these subjective / personal factors; there are objective / situational determinants of the level of involvement and attention as well.

These factors can be summarized as follows:

- No matter in which direction it takes place (sudden) changes in intensity is effective in calling attention
- Other things being equal a large object is more likely to attract the attention than a small one
- Other things being equal, favored objects are more likely to call and hold attention than not so favored
- Any object that moves in the field of vision will attract the attention even if the object in itself be inconspicuous and the attention be claimed by attractive object of other kinds.
- Any thing that is novel / surprising in our experience tends to attract us (Pillsbury, 1973).

# 2.5.3.4 Factors that Affect Involvement & Attention in the Advertising Domain

Likewise (cited in Zaichkowsky, 1986) in the advertising domain the factors that determine the level of audience attention & involvement regarding the advertising domain can be summarized as follows:

1- Characteristics of the message recipient:

As mentioned in the preceding part, what to attend and the meaning that are generated from a message vary from person to person according to inherent value system and unique experiences that each individual has been through. 2- Characteristics of the advertisement:

According to the literature the physical characteristics of an advertisement affects the level of audience involvement & attention. The physical differences might pertain to the differences in type of media (e.g.TV, radio or print), or in content of communication, or even the variation found in the product classes being advertised. For instance Wright (cited in Zaichkowsky, 1986) found that variation in type of media (print versus audio, physical characteristics) influenced the response given to the same message.

Similarly Berlyne (MacKenzie, 1986) divided attention-getting properties of advertisement in to two classes:

1-Physical Properties: Properties that affect the intensity of the stimulus (e.g. brightness, colors & size).

2-Collactive properties: Factors that depend upon comparison or collation of stimulus events (e.g. complexity, motion, unit formation & novelty).

For instance, ad size, size, number of illustration, area of copy, type sizes, number of colors, area of color, number of illustration units have all been found to be positively related to recognition.

Regarding collative aspects (properties), Holbork & Lehmann (MacKenzie, 1986) observed that ads rated as "surprising, incongruous, or funny" were more likely to have been read. Morrison and Dainoff (MacKenzie, 1986) found that the visual complexity of magazine advertisements was positively related to looking time.

3-Response Opportunity Factors:

MacKenzie (1986) identified two factors that influence the opportunity a person has to attend to a stimulus; repetition & distraction.

Repetition: As stated by Mackenzie, the greater the number of times a person is exposed to an advertisement the greater the potential opportunity to respond to it. Since the possible attention duration that can be devoted to an advertisement is limited with the duration of the advertisement, repetition of a particular advertisement provides another opportunity to attend to the advertisement.

Distraction: Another influential factor regarding response opportunity to an advertisement is "distraction". Any kind of "noise" within a message context is regarded as a distracter.

Several different types of noise manipulations have been used in connection with persuasive communications; beep sounds on a taped message, distraction of television reception; whistle, car sound or laughter are all examples of noise manipulations.

Concerning superimposed advertisements we predict that, the background – the on going program – may act as a distracter and affect the involvement and attention level of the viewers which in turn may adversely affect the recall and recognition level of the viewers.

### **Brief Overview of the Hypothesis of This Study:**

In the present study, we expect the type of advertisement (superimposed advertisement and traditional commercial) and number of advertisements (1 advertisement vs. 7 advertisements) to have different effects on memory for (in terms of recall and recognition) but not on attitude towards advertisements.

In terms of type of advertisement; based on Newell & Simon's (cited in Bettman, 1979) suggestion that, that five to ten seconds is a sufficient duration to fixate one chunk of information in LTM for later recall, we argue that incoming information via superimposed advertisement(s) or traditional commercial(s) may both have access to LTM for later recall or recognition. Like wise, since the required duration for later recognition is suggested as two to five seconds, later recognition of information or a message via superimposed advertisement(s) or traditional commercial(s) is both possible provided that suitable processing performance is met.

However it is also well known that, the further the information is processed, the more likely it will be recalled later. That is, longer television commercials compared to shorter ones provide the viewers with more opportunity to attend to and process the message, and hence enhance viewer learning. Moreover, longer commercials facilitate learning by allowing the same information to be repeated more frequently within a single exposure than shorter commercials, which again affect positively the recall and recognition of the advertised material (Pieters & Bijmolt, 1997).

At this point, not only the superimposed advertisements but also the traditional commercials seem to be in a disadvantageous position concerning that the information processing time for the viewer is limited and determined by the advertiser rather then the viewer it self; however we claim that the superimposed advertisement(s) are more likely to suffer in this respect because of their relatively shorter duration of approximately 8 seconds.

Consistent with this approach, Patzer's (1991) study in which, he compared 15- second commercials to 30-second commercials, revealed that; overall 15-second commercials were 20% less effective than their 30-second versions. Likewise, Pieters and Bijmolt's (1997) research results revealed that, brand names in longer commercials are recalled significantly better, both unaided and aided, than brand names in shorter commercials.

Other than the effect of duration, we expect the viewers of superimposed advertisement(s) to suffer from background diversions as they will be exposed to a stimulus totally irrelevant to the advertisement as a background stage – the ongoing movie- This, hypothesis is based on, Craick and Lockhart's (cited in Bettman, 1979) proposal that, processing incoming information is subject to a limited processing capacity that, background of an advertisement may divert attention from the message and since there is limited overall processing capacity to be allocated, only a small part of the information can be processed in depth at any one time.

Stating in an alternative way, likewise the several different types of noise manipulations have been used in connection with persuasive communications in the prior literature; such as, beep sounds on a taped message, distraction of television reception; whistle, car sound or laughter, we predict that, for the viewers of superimposed advertisements the background – the on going program – may act as a distracter and affect the involvement and attention level of the viewer's with the advertisements, which in turn may reflect adversely on their recall and recognition of specific advertisements.

Thus, in the light of these findings, due to their shorter duration and the possible background distraction, we expect superimposed advertisement(s) to be inferior to traditional commercial(s) in terms of effectiveness assuming that suitable processing is performed for both types of advertisements. More specifically, we expect higher scores of recall and recognition by viewers exposed to traditional commercial(s) compared to viewers of superimposed advertisements.

In terms of number of advertisements, we hypothesize that, as the number of advertisement increases from 1 to 7, the recall and recognition scores of the viewers will decline. This assumption is based on Stewart's (1989) suggestion that, as consumers are exposed to more ads, their ability to retain information content from any one ad is likely to decline due to retroactive and proactive inhibition. Thus, we expect lower recalls of advertisements for **both** type of advertisements (superimposed advertisements & traditional commercials) when the viewers are exposed to 7 advertisements as compared to 1 advertisement treatment condition. More specifically, we expect lower recall and recognition scores for viewers exposed to 7 superimposed advertisements as compared to viewers exposed to 1 superimposed advertisement. Like wise, we expect lower recall and recognition scores for viewers exposed to 7 traditional commercials as compared to viewers exposed to 1 traditional commercial.

Furthermore; regarding the limited capacity of STM proposed by Bettman (1979) that, at most 4 or 5 chunks (advertisements) could be processed at one time, we argue that viewers exposed to 7 advertisements, regardless of the type (either superimposed advertisements or traditional commercials), will be able to recall at most 5 advertisements assuming that suitable processing is performed.

However, as stated by Newell and Simon (cited in Bettman, 1979), the capacity of STM is lowered if other processing demands are made. That is, the normal capacity may be reduced to a capacity of **two or three chunks** if other tasks are undertaken simultaneously. Consistent with this view, we expect lower recall of advertisements for superimposed advertisements in which viewers are exposed to 7 advertisements as compared to viewers' recall of traditional commercials after being exposed to 7 commercials. More specifically; we

propose that, since superimposed advertisement(s) are viewed simultaneously with the ongoing program the probability of viewers attending both to the program and the advertisement simultaneously may result in lower levels of recall. Thus, we hypothesize that; the recall and recognition scores of viewers exposed to 7 superimposed advertisements will be lower as compared to viewers exposed to 7 traditional commercials.

Thus, based on previous literature findings, we hypothesize that regardless of the type of advertisement, as the number of advertisements increases from 1 to 7, the recall and recognition scores of the viewers will decline due to retroactive and proactive inhibition. Secondly, concerning the limited processing capacity of STM, we argue that regardless of the type of advertisement (either superimposed advertisements or traditional commercials), viewers exposed to 7 advertisements, will be able to recall at most 5 advertisements assuming that suitable processing is performed. Furthermore, following Newell & Simon's (cited in Bettman, 1979) proposal that the capacity of STM is lowered – reduced to two or three chunks – if other tasks are undertaken simultaneously; we propose that, the recall and recognition scores of viewers exposed to 7 superimposed advertisement(s) will be lower as compared to viewers exposed to 7 traditional commercials concerning that superimposed advertisement(s) will be viewed at the same time as the ongoing movie (program).

Regarding the **attitude towards the program** and attitude towards the embedded advertisements we do not expect any significant effects with respect to both type and number of advertisement. We based this assumption on Schuman, Thorson & Rosen's (1989) proposal that the need for program continuation or interruption strongly varies from one person to another. We, therefore argue that the attitude towards the movie (liking of the program) and / or attitude towards the embedded advertisements will vary individually according to the level of need for continuation and need for interruption (need for a break) on the part of each viewer. Since the viewers are randomly allocated to the groups; we expect both types of

viewers (high need for continuation vs. high need for interruption) within each group. Thus, we do not expect differences at a significant magnitude and direction with respect to attitude scales. Nonetheless, we measured "attitude towards embedded advertisements" and "attitude towards the program" to track any possible differences between groups.

## **CHAPTER 3**

## METHOD

# 3.1 Subjects

The subjects participated in this study were 60 undergraduate students from Middle East Technical University. Their ages ranged between 17 to 25, with a mean of 20,38 and SD of 2,49. There were 17 males and 43 females in the study. The subjects were randomly allocated to 4 treatment conditions. Each group included 15 subjects. All students were from the faculty of Arts and Science.

The socio – demographic characteristics of the subjects are shown in table 3.1.

Table 3.1. Socio- demographic characteristics of the sample		
N=60		•
Variables	Mean	SD
Age	20,38	2,49
	Frequencies	
Gender		
Male	17	
Female	43	
	-1	
Faculty		
Arts and Science	60	
Mother's Education Level		
Primary school graduate	4	
Secondary school graduate	8	
High school graduate	23	
University graduate	23	
Post university graduate	2	
Father's Education Level		
Primary school graduate	3	
Secondary school graduate	3	
High school graduate	20	
University graduate	29	
Post university graduate	5	
	1	
Place of Residence		
Metropolis	34	
City	20	
Town	5	
Village	1	

#### **3.2 Materials**

### Movie:

Each group watched the same movie called "MISERY" by Rob Reiner directed in 1991. The type of movie was psychological thriller and the duration was approximately 105 minutes.

## Advertisements:

Each group was exposed to advertisement(s) during the movie. The first group was exposed to 7 traditional commercials whereas the second group was exposed to superimposed versions of the same 7 advertisements. For the first and second groups the arrangement of the advertisements was in the following order: Uğur (magazine), Kilim (furniture), Coca-cola contest of the week (soft drink / GSM operator), Adopen (window system), Merinos (carpet), Yeşil (shoe), Arçelik (white good). The average duration of these advertisements were approximately 19 seconds. In the first group the traditional commercials were appeared as an advertisement clutter at the 51st minute of the movie. On the other hand for the second group, the superimposed versions of the same advertisements appeared at the 15th, 30th, 45th, 60th, 75th, 90th and 105th minute of the movie one by one. The duration of the superimposed versions of the same advertisements were 8 seconds on the average. It is important to highlight the fact that, the first and second groups were exposed to same advertisements with the same sequence but with different formats.

For the third and fourth group only 1 advertisement appeared during the movie. The third group was exposed to traditional commercial version of the Yeşil (shoe) advertisement whereas the fourth group was exposed to superimposed version of the same Yeşil (shoe) advertisement. In both groups the advertisement appeared at the 51st minute of the movie.

### **Measures of Recall and Recognition:**

Subjects' recall and recognition of the advertisement(s) were measured via the following:

## Unaided recall:

Subjects were asked to write down the brand name(s) that they recall (see Appendices C & D). The subjects within the first and second group were asked to recall the brand names (8 brand names) out of 7 advertisements that they watched. The subjects within the third and fourth group were asked to recall only one brand name since they were exposed to only one advertisement

## **Recognition of brand names:**

Subjects were asked to recognize the relevant brand name(s) among three other brand names that represented the same product category (The association test, see Appendices E & F). The subjects within the first and second group were asked to recognize 8 brand names out of 7 advertisements that they watched. Likewise, subjects within third and fourth group were asked to recognize only one brand name since they were exposed to only one advertisement.

## **Recognition of advertisement and product details:**

Subjects were asked to recognize product messages, logos or other signs and details in the advertisement among two other similar options. This test is consisted of 16 questions for the first and second group and 3 questions for the third and fourth group (see Appendices G & H).

# Advertisement ratings:

Subjects were asked to respond to two 5-point scales, ranging from strongly agree to strongly disagree. The scale aimed to measure their attitude toward the embedded advertisement(s) in the movie. The scale consisted of 13 items. (see Appendix B)

## **Program ratings:**

A questionnaire was allocated to each student, which aimed to measure their general attitude toward the movie that they watched. The questionnaire was consisted of 31 close-ended questions in which the response of agreement or disagreement with the statements were made on a 5 – point scale ranging from strongly disagree (1) to strongly agree (5) (see Appendix A)

### **3.3 Procedure**

Before the experiment the subjects were told a cover story that the experiment was about the effect of violent content movies on young people. Subjects were told that, they were going to watch a violent content movie and nothing was told about the advertisement(s) embedded in the movie. Thus, the students were made to believe that, the research was related to testing their attitude toward violent content movie.

After watching the movie, subjects were given a scale aiming to assess their attitude toward the program. Surprisingly, there were questions regarding their attitude toward embedded advertisements. After the subjects filled the questionnaires they were given the recall test. Than the students completed the recognition tests. Tests were given one by one concerning that each test had hidden answers regarding the other tests.

## **Scoring of Tests:**

For the recall test subjects were awarded 1 point for each correct answer and 1 for incorrect answers. Therefore, the recall of right and wrong answers was derived. The wrong recalls were subtracted from the right recalls so that total recall is derived. A subject within first or second group could obtain a maximum of 8 points and a subject within third or fourth group could obtain a maximum score of 1 point. In order to compare the four groups, the first two groups' scores were divided to 8 so that the total recall scores ranged from 1 to 0.

The association test comprised of 16 questions for the first & second group, and 1 question for second & third group. Each subject awarded with 1 point for each correct answer and 1 for incorrect answers. Therefore, the recall of right and wrong answers was derived. The wrong recalls were subtracted from the right recalls so that total recognition is derived. A subject within first or second group could obtain a maximum of 16 points and a subject within third or fourth group could obtain a maximum score of 1 point. In order to compare the four groups, the first two groups' scores were divided to 16 so that the total recognition scores ranged from 1 to 0.

The recognition test comprised of 8 questions for the first & second group and 3 questions for the third and fourth group. Again the subjects awarded with 1 point for each correct answer and -1 for incorrect answers. Therefore, the recall of right and wrong answers was derived. The wrong recalls were subtracted from the right recalls so that total recognition is derived. A subject within first and second group could obtain a maximum score of 8 points and a subject within third and fourth group could obtain a maximum score of 3 points. In order to compare the four groups, the first two groups' scores were divided to 8 and the last two groups were divided into 3 so that the total recognition scores ranged from 1 to 0.

#### CHAPTER 4

### RESULTS

For the initial analysis of data, factor analyses were conducted for the two attitude scales that were developed by the author of this study. A factor analysis with an oblique rotation was separately performed for each scale that was developed by the author. The only interpretable factor structure was obtained for Attitude Toward Embedded Advertisement(s). The Attitude Toward the Program Scale was treated as single factor scale as it had reasonable reliability coefficient. The Cronbach alpha reliability of the total scale was found to be .92 and item-total correlations ranged from .29 to .79.

<u>Factor Analysis of Attitude Toward Embedded Advertisement(s)</u>: For Attitude Toward Embedded Advertisement(s), interpretable factors were found. Items with loadings less than .30 were not included. Initial eigenvalues, percentages of explained variance, and the scree plot suggested a two-factor solution. As indicated in Table 4.1., 8 items loaded on Factor 1, and 4 items on Factor 2. One item was excluded as it had loadings less than .30. The eigenvalue and percentage of variance explained by the first factor was 4.2 and 32 %, respectively. For the second factor, the eigenvalue was 2.4 and variance accounted for was 18 %. The two factors together explained 50% of the total variance.

Factor 1 was called "Liking of Advertisements" and Factor 2 "Attentiveness & Involvement toward Advertisements". An example for Factor 1 was " I liked the advertisements that I have already watched". An example of the second factor was "I was not aware of the commercial during the program". The Cronbach alpha coefficient for the first factor was .79, and .73 for the second factor.

Table 1 shows factor loadings, percents of variance for principle axis factoring, and reliabilities on items of Attitude Toward Embedded Advertisement(s).

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The table of descriptive (see Table 4.2.) revealed that, the recall of advertisements for the subjects exposed to 7 superimposed advertisements ranged between 0 and 3 (M=0.09, SD=0.11). For the subjects exposed to 7 traditional commercials the recall of advertisements ranged between 0 and 4 (M=0.23, SD=0.12).

A 2 (Superimposed Advertisement(s) vs. Traditional Commercial(s) Type) x 2(1 advertisement vs. 7 advertisements) x 2 (Subscales of Attitude towards Embedded Advertisement(s) Scale) mixed design ANOVA with repeated measures on the last factor was To be able to compare the subscales of the Attitude towards Embedded used. Advertisement(s) Scale with each other via variance analysis, the average for these subscales were used. A significant main effect was found between the subscales of Attitude towards Embedded Advertisement(s) Scale, <u>F</u> (1, 56) = 41.86, <u>p</u> = .001. The scoring of the liking subscale ( $\underline{M} = 3.28$ ,  $\underline{SD} = 0.72$ ) was significantly higher than the scoring of the attentiveness & involvement subscale ( $\underline{M} = 2.41$ ,  $\underline{SD} = 0.92$ ). A significant interaction effect was found between Number of Advertisements in terms of the subscales of Attitude towards Embedded Advertisement(s), <u>F</u> (1, 56) = 15.93, <u>p</u> = .001. The interaction was further analyzed using LSD, it was found that in terms of attention & involvement subscale, when the number of advertisements increased from 1 ( $\underline{M} = 2.88$ ,  $\underline{SD} = 1.01$ ) to 7 ( $\underline{M} = 1.94$ ,  $\underline{SD} = 0.50$ ), the attentiveness & involvement scores were found to decrease, whereas in terms of scorings of the liking subscale, when the number of advertisements increased from 1 to 7, there were no significant differences. ( $\underline{p}$ < .05).

An Advertisement Type x Number of Advertisements (2 x 2) between – subjects ANOVA was conducted with attitude toward the program. A significant interaction effect was found between Advertisement Type and Number of Advertisements in terms of attitude toward the program, <u>F</u> (1, 56) = 4.59, <u>p</u> = .034. The interaction was further analyzed using LSD, it was found that when the advertisements utilized were superimposed, as the number of advertisements increased from 1 ( $\underline{M} = 88.66$ ,  $\underline{SD} = 9.42$ ) to 7 ( $\underline{M} = 103.06$ ,  $\underline{SD} = 18.65$ ) the liking of the program increased, whereas for the traditional commercial, the number of advertisements did not make a significant difference ( $\underline{p} < .05$ ). When 7 advertisements were used, the liking for the program was higher for the superimposed advertisement ( $\underline{M} = 103.06$ ,  $\underline{SD} = 18.65$ ) compared to the traditional commercial ( $\underline{M} = 89.80$ ,  $\underline{SD} = 24.84$ ) with an approach significance,  $\underline{p} = .06$ . Whereas when the number of advertisement was 1, there were no significant differences between traditional commercials and superimposed advertisements.

An Advertisement Type x Number of Advertisements (2 x 2) between - subjects ANOVA was performed on Recall (Number of incorrect answers subtracted from the number of correct answers). A significant main effect was found for Number of Advertisements in terms of recall, <u>F</u> (1, 56) = 12.19, <u>p</u> = .001. As the number of advertisements increased from 1  $(\underline{M} = 0.43, \underline{SD} = 0.50)$  to 7  $(\underline{M} = 0.16, \underline{SD} = 0.13)$ , the total recall of the embedded advertisements decreased. A significant main effect was found for Advertisement Type in terms of recall, <u>F</u> (1, 56) = 22.86, <u>p</u> = .001. The total number of recall was found to be higher for the traditional type of advertisement ( $\underline{M} = 0.48$ ,  $\underline{SD} = 0.42$ ) compared to the superimposed type of advertisement ( $\underline{M} = 0.11$ ,  $\underline{SD} = 0.26$ ). A significant interaction effect was found between Advertisement Type and Number of Advertisements in terms of recall, F(1, 56) =8.73, p = .005. The interaction was further analyzed using post hoc Tukey honestly significant difference comparison, it was found that when there is one single advertisement, the number of recall was higher for the traditional commercial ( $\underline{M} = 7.73$ ,  $\underline{SD} = 0.45$ ) compared to the superimposed type of advertisement ( $\underline{M} = 0.13$ ,  $\underline{SD} = 0.35$ ) ( $\underline{p} < .001$ ). When the number of advertisements was 7, the number of recall was not found to be significantly different among the two advertisement types. In terms of the traditional type of advertisement, when the number of advertisements increased from 1 (M = 0.73, SD = 0.45) to 7 (M = 0.23, SD = 0.45) 0.12), there was a significant decrease in the total recall (p < .001). However there were no

differences of recall among the number of advertisements in the superimposed type of advertisement.

An Advertisement Type x Number of Advertisements (2 x 2) between subjects ANOVA was performed on recognition of advertisement and product details. A significant main effect was found for Number of Advertisements in terms of recall, F(1, 56) =7.63, p = .008. As the number of advertisements increased from 1 (M = 0.41, SD = .053) to 7 (M = 0.16, SD = 0.16), the recognition of advertisement and product details was lower. A significant main effect was found for Advertisement Type in terms of the recognition of advertisement and product details, <u>F</u> (1, 56) = 9.02 <u>p</u> = .004. The amount of recognition was found to be higher in the traditional type of advertisement (M = 0.42, SD = .037) compared to the superimposed type of advertisement ( $\underline{M} = 0.14$ ,  $\underline{SD} = 0.40$ ). The interaction was further analyzed using post hoc Tukey honestly significant difference comparison, it was found that when there is one single advertisement, the amount of recognition was higher for the traditional type of advertisement ( $\underline{M} = 0.64$ ,  $\underline{SD} = 0.39$ ) compared to the superimposed type of advertisement ( $\underline{M} = 0.18$ ,  $\underline{SD} = 0.56$ ) ( $\underline{p} < .001$ ). When the number of ads was 7, the amount of recognition of advertisements and products was not found to be significantly different among the two advertisement types. In terms of the traditional type of advertisement, when the number of advertisements increased from 1 ( $\underline{M} = 0.64 \underline{SD} = 0.39$ ) to 7 ( $\underline{M} = 0.20, \underline{SD} =$ 0.17), there was a significant decrease in the recognition level (p < .001). However there were no differences of recall among the number of advertisements in the superimposed type of advertisement.

An Advertisement Type x Number of Advertisements (2 x 2) between – subjects ANOVA was performed on recognition of brand names. A significant main effect was found for Advertisement Type in terms of the recognition of brand names, <u>F</u> (1, 56) = 48.52, <u>p</u> = .001. The amount of recognition was found to be higher in the traditional type of advertisement ( $\underline{M} = 0.31$ ,  $\underline{SD} = 8.010E-02$ ) compared to the superimposed type of advertisement ( $\underline{M} = -1.4E-03$ ,  $\underline{SD} = 0.25$ ). The interaction was further analyzed using post hoc Tukey honestly significant difference comparison, it was found that when there is one single advertisement, The amount of recognition of brand names was higher for the traditional type of advertisement ( $\underline{M} = 3.33$ ,  $\underline{SD} = 0.01$ ) compared to the superimposed type of advertisement ( $\underline{M} = -0.11$ ,  $\underline{SD} = 0.30$ ) ( $\underline{p} < .001$ ). When the number of ads was 7, the amount of recognition of advertisements and products was not found to be significantly different among the two advertisement types. In terms of the superimposed type of advertisement, when the number of advertisements increased from 1 ( $\underline{M} = -0.11$ ,  $\underline{SD} = 0.30$ ) to 7 ( $\underline{M} = 0.11$ ,  $\underline{SD} = 0.13$ ), there was a significant increase in the recognition level ( $\underline{p} < .001$ ). However there were no differences of recognition of brand names among the number of advertisements in the traditional type of advertisement.

Items	*Factor 1	*Factor 2
*9. I liked the ads that I already watched	0.884	3.59E-02
*3. I enjoyed the ads that I already watched	0.835	5.24E-04
8. I was not at all entertained by the ads that I already watched	0.794	-0.164
*4 I found the ads that I already watched interesting	0.786	8.79E-02
11. I found the ads that I already watched boring	0.734	-3.6E-02
*7. I would like to buy some of the products that are presented in the ads that I already	0.570	-3.0E-02
watched		
6. I wanted to talk to people near by during the commercial break	0.539	0.189
5. I wanted to go out of the room during the commercial break	0.450	-8.9E-02
13. I found it hard to remember the information about the products represented during the	-5.3E-02	0.778
commercial break		
*12. I found it easy to remember the information about the products represented during the	-8.1E-03	0.768
commercial break		
2. I did not feel anything towards the ads that I already watched	-6.8E-03	0.730
10. I was not aware of the commercial break during the program	0.235	0.697
1. The commercial break irritated me	0.208	-0.289
Eigenvalues	4.194	2.372
Percents of Variance	32.260	18.248
Reliability Alpha	0.79	0.73

<u>Table</u> 4.1. Factor Loadings, Percents of Variance for Principle Axis Factoring, and Reliabilities on Items Concerning Attitudes Toward Embedded Advertisements.

 Factor 1: Liking of the Advertisement(s), Factor 2: Attentiveness & Involvement with Advertisement(s)

 Note:\* The scoring for these items was reversed.

<u>Table</u> 4.2. Descriptive of recall scores; Mean, Standard Deviation, Minimum & Maximum scores

AD_TYPE * AD_NO	Mean	Std. Deviation	Min.	Max.
Superimposed Advertisement * 7 ads	0,09	0,11	0	3
Superimposed Advertisement * 1ad	0,13	0,35	0	1
Traditional Commercials * 7 ads	0,23	0,12	0	4
Traditional Commercials*1 ad	0,73	0,46	0	1

#### CHAPTER 5

#### DISCUSSION

The objective of the present study was to examine the influence of type of advertisement (superimposed advertisement vs. traditional commercial) and number of advertisement (1 advertisement vs. 7 advertisements) on advertising effectiveness. Advertising effectiveness measured via tests that measured how well the students remembered advertisements and by the use of attitude measurement scale.

The results of our study revealed closely parallel results for **recall of advertisements** and **recognition of product / message details.** 

As predicted, the results revealed that, both superimposed advertisements and traditional commercials may have an access to LTM for later recall and recognition. This finding once again verified the suggestion by Newell & Simon (1973) that, 5 to 10 seconds and 2 to 5 seconds is sufficient enough to fixate one chunk of information (advertisement) in LTM for later recall and recognition respectively.

However as expected, on the whole the maximum recall scores of the subjects exposed to 7 advertisements did not exceed 5 (the range was between 0 - 4), indicating that, regardless of the type of advertisement, due to the limited capacity of STM, at most 4 or 5 advertisements can be processed at one time as suggested by Bettman (1979). Further, the results revealed that; for traditional commercials the range of recall was between 0 and 4, whereas for superimposed advertisements the range of recall was between 0 and 3. This finding was also consistent with our hypothesis based on Newell & Simon's (cited in Bettman, 1979) suggestion that the capacity of STM is lowered to 2 or 3 chunks (advertisements) when other processing demands are made. That is, as expected, the recall of superimposed advertisements were lower as compared to traditional commercials, since the

processing of superimposed advertisements were much more demanding as the advertisements were viewed simultaneously with the ongoing program.

On the whole, in accord with our hypothesis, traditional commercials were found to be better recalled & recognized than superimposed advertisements. This finding may be attributable to two factors:

First is that, consistent with our hypothesis, since the duration of traditional commercial(s) is longer compared to superimposed advertisement(s), the viewers of traditional commercial(s) had more chance to process the given information / message (advertisement) which in turn enhanced their recall and recognition of specific advertisements and product details. This finding was also consistent with most of the prior literature findings (e.g., Patzer 1991, Pieters & Bijmolt 1997) excluding Mac Lahan & Sigel's (1980) study in which a 30 – second commercial is compared with 24 – second time compressed version. Their results revealed that, unaided recall for the time compressed versions were 36% greater than the recall for the 30 - second version. Similarly, the results of aided recall indicated that, on the average recall for compressed versions were 40% greater than the recall for 30 seconds versions. However the general finding of the most of the prior studies comparing longer commercials with their shorter versions is that: "longer commercials are significantly better recalled than shorter versions"

The second factor is that, consistent with our hypothesis based on Craick and Lockhart's (cited in Bettman, 1979) proposal, background of superimposed advertisement(s) may have served as a distracter and diverted the attention of the viewers from the message(s) / advertisement(s) and since there is limited overall processing capacity to be allocated, only a small part of the information included within the advertisement(s) could have been processed in depth and thus, resulted in lower levels of recall and recognition . This finding was also consistent with most of the prior literature findings in the area of divided attention (Broadbent

1952, 1954; Mowbray 1953, 1954; Poulton 1953; Spieth, Wrtis & Webster 1954; Webster & Solomon; 1955; Moray 1969; Colavita 1971). The common interpretation indicated from these studies was that, due to the limited human attention & processing capacity, parallel processing of two simultaneous inputs, if any, is usually impaired and always less efficient than the processing of a single stimulus (cited in Kahneman, 1973).

An interesting and complementary finding of our research which may shed more light regarding the issue was that, the recall of traditional commercial(s) was better as compared to superimposed advertisement(s) when the viewers are exposed to **only 1** advertisement. However when the number of advertisements was 7, there were no significant difference between recall and recognition of superimposed advertisements and traditional commercials. Furthermore, regarding the traditional commercials; recall and recognition of advertisements were significantly lower when there were 7 advertisements compared to exposure to 1 advertisement. However; regarding the superimposed advertisements recall and recognition of advertisements advertisements recall and recognition of advertisement to advertisement. However; regarding the superimposed advertisements recall and recognition of advertisements advertisements recall and recognition of advertisements were significantly lower when there were 7 advertisements compared to exposure to 1 advertisements did not significantly changed between viewers exposed to 1 superimposed advertisements.

This finding only partially confirmed our hypothesis that; as the number of advertisements increases from 1 to 7 the recall and recognition of advertisements would decrease. That is, our hypothesis is verified for traditional commercials but not for the superimposed advertisements.

The explanation for traditional commercials is straightforward and consistent with the prior literature findings. As stated by Stewart (1989) due to retroactive and proactive inhibition as viewers are exposed to more advertisements their ability to retain information from any one advertisement is declined.

On the other hand, concerning the superimposed advertisement(s) the result was contradictory in respect to prior research findings. That is, exposure to 1 superimposed advertisement vs. 7 superimposed advertisements did not significantly affect the recall and recognition of specific advertisements. This can be explained in two ways;

First is that, the students exposed to superimposed advertisements may have been more involved with the movie as compared to viewers of traditional commercials concerning that they were not interrupted by a commercial break. Thus, the viewers of the superimposed advertisement(s) may not have noticed the existence of advertisements at the one-fifth bottom part of the screen. Since the superimposed advertisements may have remained unnoticed, the number of advertisement manipulation may have not made any significant difference.

A second explanation may be that, the shorter duration & background distraction might be affecting the processing of advertisements so adversely that, regardless of the number of advertisements, superimposed advertisements cannot be effective.

With respect to **recognition of brand names**, the results indicated parallel findings to recall of advertisements and recognition of product / message details at some aspects. In accord with the findings of **recall** of advertisements and recognition of product details, on the whole the viewers of traditional commercial(s) better recognized the brand names as compared the viewers of superimposed advertisements. Once again, this difference was significant when there was only one advertisement. The recognition of brand names was not found to be significantly different for the viewers of superimposed advertisements.

However, with regard to **recognition of the brand names** when the number of advertisements was 7, our results revealed two unexpected results. First one is that, students exposed to 7 superimposed advertisements recognized significantly more advertisements as compared to students exposed to only 1 superimposed advertisement. This was in total contradiction with our hypothesis that, as the number of advertisement increases from 1 to 7, the recall and recognition scores of the viewers will decline. This was also contrary to many

other findings in the literature. Furthermore, recognition of brand names of students exposed to 7 traditional commercials was not found to be significantly different from recognition of brand names of students exposed to 1 traditional commercials which was again contrary to both our above mentioned hypothesis and many other literature findings.

These results have driven us to two conclusions, first is that, our hypothesis that as the number of advertisements increases from 1 to 7, the recall and recognition scores of the viewers will decline was verified for recall of advertisements and recognition of product details but not for the recognition of brand names for traditional commercials. Thus, this may imply that, recognition of brand names may be easier than either the recall of advertisements or the recognition of product details for the viewers and thereby, were not affected by the increase of advertisements in the way that we previously considered (at least up to 7 advertisements). Secondly, in respect to the increase in the recognition of brand names concerning 7 superimposed manipulation as compared to 1 superimposed manipulation, another explanation may be that when there was 1 superimposed advertisement the viewers may have missed the advertisements as they were not expecting to see an advertisement and as they did not received a forewarning indicating that an advertisement will be shown (such as a generic indicating that an advertisement will be shown) On the other hand, with respect to 7 superimposed advertisements manipulation, after several advertisements have appeared, the viewers may have began to notice the appearance of the advertisements and began to pay attention to the following advertisements which resulted in their higher recognition of brand names. With respect to this issue, we suggest that, the effectiveness of superimposed advertisements can be increased via an implication of forewarning. For instance, a blinking sign of an A (in Turkey R) may appear at the upper right corner of the screen simultaneously with the superimposed advertisement indicating that an advertisement is entered to the program which may probably pull the attention of the viewer to the advertisement and make it noticeable.

Regarding the attitude towards embedded advertisements and attitude towards the program; our hypothesis is only partially confirmed.

With respect to attitudes towards the embedded advertisement(s); as predicted, the results did not indicate any significant difference for superimposed advertisement(s) and traditional commercial(s). In addition, although the number of advertisement manipulation affected the attention & involvement levels adversely, liking of the program was not affected by the number of advertisement manipulation.

With respect to attitude towards the program, unexpectedly, the results revealed significant main effect for type of advertisement manipulation. That is, the liking of the program was found to be higher when the embedded advertisements were superimposed as compared to the program in which the embedded advertisements were traditional commercials. This finding implies that, when the viewers are not interrupted by a commercial break their liking of the program significantly increases.

Another unexpected finding concerning the attitude towards the program measure was that; the program liking was higher for viewers of 7 superimposed advertisements as compared to viewers of 1 superimposed advertisement. However the number of advertisements (1 vs. 7 advertisements) was not significantly affected the viewers exposed to traditional commercials with respect to the program liking.

Our possible explanation for this finding is that, for the viewers exposed to 7 superimposed advertisements, the increased distraction, might have increased the perceived value of the program and thereby, resulted in more liking of the program.

However, concerning the viewers exposed to 7 traditional commercials, the distraction was so harsh that; the connection between the program and viewers was totally interrupted.

Thus, the liking of the program was not increased as in the case of 7 superimposed advertisements manipulation.

This study contributed to the literature as being the first study (to our knowledge) comparing the effectiveness of superimposed advertisements vs. traditional commercials. The results of our study indicated that, on the whole traditional commercials are superior in terms of recall & recognition of advertisements (both recognition of product details and brand names). This, fact is attributed to shorter duration and background distraction attributes of superimposed advertisements. However, when individuals are exposed to multiple advertisements (7 in our case) this difference was negligible between traditional commercials and superimposed advertisements. This indicates that, better recall and recognition results can be obtained via traditional commercials if the embedded advertisement within a program is only one. However, if the embedded advertisements within a program are multiple (at least equal to 7 or greater) the effectiveness of superimposed advertisements are similar to traditional commercials with respect to recall and recognition.

#### **Limitations:**

One of the primary drawbacks of this study was that, the study was conducted among students aging between 17 - 25. Thus, the selected sample was not a good representative of the general population. The attention & involvement level of the young people with respect to advertisements and their attitudes towards embedded advertisements or to the program may probably be different than the general population. Thus, we can regard the findings of the study as representative of a particular segment in the population rather than the general population itself.

Secondly, neither the program nor the advertisements was the students' own preference to watch. Likewise, the date and the timing of the study again were not determined by the viewers. Additionally, the way that the viewers have watched the movie was not identical to how they normally watch a movie at home. That is, no channel switching, eating & drinking, smoking or leaving the room was possible for the viewers, which people usually engage in during watching a movie in real life. All these factors may have an unintended effect on effectiveness of advertisement(s).

Thirdly, the students have taken the memory tests and attitude scales close after the exposure to the advertisements. However, as highlighted by Keller (1987) consumers do not necessarily make their choices right after the exposure to advertising, usually there is a typical time delay between consumers' opportunity to purchase the advertised brand and advertisement exposure. Thus, the immediate measures of memory for and attitude towards advertisements may not persist until the time of opportunity to purchase.

Fourthly, it is important to highlight the fact that, as suggested by Mac Lahan & Siegel (1980), shorter commercials saving less money could be a money saving alternative for television advertisers. From the point of view of broadcasters, shorter commercials could be a means of better advertising demand, relieving scheduling problems and increasing total revenues. Thus, a cost – benefit analysis may put the superimposed advertisements in a superior position over traditional commercials. This issue was beyond the aim of this thesis, yet it may be an important point to consider and a potential future research area.

Lastly, in the present study advertisement effectiveness was tested regarding a certain sequence of the advertisements, which was selected randomly. That is, although the viewers of both superimposed advertisements and traditional commercials viewed the advertisements in the same sequence (with respect to 7 advertisement manipulation), different sequences of these advertisements may create different results with respect to effectiveness of superimposed advertisements vs. traditional commercials. Future research may study the sequence effects of advertisements on the effectiveness of superimposed advertisements vs. traditional commercials. Furthermore, any future research that study the effectiveness of superimposed advertisements vs. traditional commercials may also manipulate the sequence of advertisements as an independent variable in order control and see the effects of sequence of advertisements on effectiveness of superimposed advertisements vs. traditional commercials.

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Why Tv Advertising: http://www.9and10news.com

Summary of types of TV Advertising: http://www.zonalatina.com

#### APPENDICES

### **APPENDIX A**

#### Attitude Toward the Program Scale

Bu araştırma sizin bazı duygu ve düşüncelerinizi anlamaya yöneliktir. Çeşitli ölçekler verilmiştir. Doğru ya da yanlış cevap söz konusu değildir. Önemli olan samimi düşüncelerinizi açıklıkla belirtmenizdir. Her ölçeğin başındaki yönergeyi dikkatle okuyunuz. Size en uygun gelen seçeneği işaretleyiniz. Katkılarınız için teşekkür ederim. Pınar Kocabıyıkoğlu

Öğrenci No:

kesinlikle	katılıyorum	kararsızım	katılmıyorum	kesinlikle		
katılıyorum				katılmıyorum		
	_	-	_	_		
		3	44	5		
	yici buldum					
2-Film hoşuma	•					
		çtiğini anlamadım	_			
	da ara vermek isted		.t.			
		ırcadığımı düşündür	l.*			
6-Filmi ilginç b		<b>1</b> . •				
	tre olmakta güçlük	çektım.*				
8-Film beni hey						
9-Filmin sonunu merak ettim.						
		lerle ilgilenmek ister	nedi			
11-Filmi dikkat						
12-Film esnasında yanımdakiyle konuştum.*						
	nda odayı terk etme					
	nda bölünmek istem					
	n önce bitmesini ist					
16-Filmi durma	adan izlemek istedir	m				
	merak uyandırdı					
18-Filmi izleme	ektense başka bir şe	ey yapıyor olmayı ter	cih ederdim.*			
19-Filmi sonun	a kadar izlemek iste	edim				
20-Film hoşum	a gitmedi.*					
21-Filmi sürükl	leyici bulmadım.*_					
22-Film reklam	ılarla bölündüğü zaı	man sinirlendim				
23-Film bittiğir	nde sevindim.					
24-Filmin arası	na reklam girdiğind	le sevindim.*				
25-Filmin rekla	ımlarla bölünmesi b	oana hiçbir şey hisset	tirmedi			
26-Bence film	çok uzundu.*					
27-Film bittiğir	nde, keşke daha bitr	neseydi diye düşünd	üm			
28-Film bittiğir	nde üzüldüm					
29-Bence film	kısa sürdü					
30-Film bittiğir	nde hiçbir şey hisse	tmedim				
31-Filmi izlerk	en başka şeyler düş	ünüyordum.*				
* Reversed iten						

### **APPENDIX B**

#### **Attitude Toward Embedded Advertisements Scale**

Öğrenci No:\_\_\_\_\_

kesinlikle katılıyorum	katılıyorum	kararsızım	katılmıyorum	kesinlikle katılmıyorum
1	2	3	4	5

1-Biraz önce izlemiş olduğum reklam(lar) beni kızdırdı.

2- Biraz önce izlemiş olduğum reklam(lar)a karşı herhangi bir şey hissetmedim.\_\_\_\_

3-Biraz önce izlemiş olduğum reklam(lar) hoşuma gitti.\_\_\_\*

4- Biraz önce izlemiş olduğum reklam(lar)ı ilginç buldum.\_\_\_\*

5- Biraz önce izlemiş olduğum reklam(lar) esnasında odadan dışarı çıkmak istedim.\_

6- Biraz önce izlemiş olduğum reklam(lar) esnasında yanımdakilerle konuşmak istedim.

7- Biraz önce izlemiş olduğum reklam(lar)daki ürünlerden bazılarını almak istiyorum.\_\_\_\_\*

8- Biraz önce izlemiş olduğum reklamdan hiç hoşlanmadım.

Biraz önce izlemiş olduğum reklam(lar)ı ilginç buldum.\_\_\_\*

9- Biraz önce izlemiş olduğum reklam(lar)ı beğendim.\_\_\_\_

10- Biraz önce gösterilmiş olan reklam(lar)ı fark etmedim (kaçırdım).\_\_\_

11- Biraz önce görmüş olduğum reklam(lar)ın sıkıcı olduğunu düşünüyorum.

12- Biraz önce reklamını izlediğim ürün(ler)le ilgili bilgiler kolayca aklımda kaldı. \*

13- Biraz önce reklamını izlediğim ürünl(ler)e ilgili bilgileri aklımda tutmakta zorlandım.

\* Reversed items

## **APPENDIX C**

# The Recall Test (7 advertisements)

Öğrenci No:\_\_\_\_\_

İzlediğiniz film arasında gösterilen reklamlarda, ürünleri tanıtan veya adı geçen markalardan hatırladıklarınızı yazınız.

1-

2-

3-

4-

5-

6-

7-

8-

# APPENDIX D

# The Recall Test (1 advertisement)

Öğrenci No:\_\_\_\_\_

İzlediğiniz film arasında gösterilen reklamda, ürünü tanıtan markayı yazınız.

1-

#### **APPENDIX E**

#### The Association Test (7 advertisements)

#### Öğrenci No: \_\_\_\_\_

İzlemiş olduğunuz filmde yer alan 8 çeşit ürünü tanıtan markayı aşağıdaki seçenekler arasından işaretleyiniz.

1-Dergi a-Final b-Uğur c-Mat-Fen 2-Mobilya b-Yataş c-Kilim d-Kelebek 3-Ayakkabı a-Ayakkabı dünyası b-Yeşil c-Greyder 4-Pencere Sistemleri a-Egepen b-Pakpen d-Adopen 5-Halı a-Saray b-Gümüşsuyu c-Merinos 6-Beyaz Eşya a-Arcelik b-Bosch c-Profilo 7-Haftanın yıldızı yarışması içecek sponsoru a-Coca-cola b-Fanta c-Sprite 8-Hafatanın yıldızı yarışması iletişim sponsoru a-Turkcell b-Telsim c-Aria

## **APPENDIX F**

## The Association Test (1 advertisement)

# Öğrenci No: \_\_\_\_\_

İzlemiş olduğunuz filmde yer alan ürünü tanıtan markayı aşağıdaki seçenekler arasından işaretleyiniz.

1-Ayakkabı a-Ayakkabı dünyası b-Yeşil c-Greyder

#### **APPENDIX G**

#### The Recognition Test (7 advertisements)

#### Öğrenci No:\_\_\_\_\_

- 1-Uğur dergisi kaç yıllık tecrübesi ile sizi üniversiteye hazırlar?
  - a-17 b-27
  - c-37
- 2-Uğur dergisi reklamında abonelik için verilen telefon numarası neydi?
  a-660 41 58
  b-660 58 41

c-666 41 58

- 3-Bu cümleyi tamamlayınız: "Bi' kilim....."a-yeterb-yeter sevgilimc-bi' de sevgilim
- 4-Kilim mobilya reklamında, reklamın sloganı hangi renk fon üzerine yazılmıştı? a-sarı b-mavi
  - c-turuncu
- 5-Kilim mobilyanın logosu ne renkti? a-yeşil b-kırmızı c-kahve rengi
- 6-Kilim mobilya reklamında verilen internet adresi neydi? a-www.kilimmobilyalari.com.tr b-www.kilim.com.tr c-www.kilimmobilya.com.tr
- 7-Yeşil ayakkabı reklamında, ne tip ayakkabı tanıtımı yapılmaktaydı?
  a-çocuk ayakkabısı
  b-kadın ayakkabısı
  c-erkek ayakkabısı
- 8-Yeşil ayakkabı reklamında, alışverişlerinizde kaç taksit yapılacağı söylenmekteydi?
   a-3
   b-4
  - 0-4
  - c-5
- 9-Yeşil ayakkabı reklamında; en yeni en güzel modeller için verilen fiyat neydi?
   a-49.500.000 TL
   b-48.500.000 TL

c-44.500.000 TL

10-Bu cümleyi tamamlayınız:"Adopen, beklentilerinizin ......"
a-karşılığı
b-tüm karşılığı
c-tam karşılığı

11-Adopen reklamında verilen telefon numarası neydi?

- a-444 24 24
- b-444 42 42
- c-440 42 42

12-Merinos halı reklamında, alışverişlerinizde peşin fiyatına kaç taksit yapılacağı söylenmekteydi?

a-10

b-11

**c-12** 

13-Merinos halı reklamında hangi ünlüyü gördünüz?

a-Beyaz

b-Özcan Deniz

c-İbrahim Tatlıses

14-Coca-cola haftanın yıldızı yarışması reklamında, yarışmaya katılmak için hangi numaraya mesaj göndermek gerekiyordu?

a-4530 b-3045 c-4535

15-Coca-cola haftanın yıldızı yarışması reklamında, yarışmaya katılmak için nereye mesaj göndermek gerekiyordu?

a-Telsim b-Turkcell c-Aria

16-Arçelik beyaz eşya reklamında, ön ödemeli beyaz arçelikler hangi ay için indirimliydi? a-Mart

b-Nisan

c-Mayıs

### **APPENDIX H**

#### The Recognition Test (1 advertisement)

Öğrenci No:\_\_\_\_\_

- 1-Yeşil ayakkabı reklamında, ne tip ayakkabı tanıtımı yapılmaktaydı?
  a-çocuk ayakkabısı
  b-kadın ayakkabısı
  c-erkek ayakkabısı
- 2-Yeşil ayakkabı reklamında, alışverişlerinizde kaç taksit yapılacağı söylenmekteydi? a-3
  - b-4
  - **c-5**
- 3-Yeşil ayakkabı reklamında; en yeni en güzel modeller için verilen fiyat neydi?
   a-49.500.000 TL
   b-48.500.000 TL

c-44.500.000 TL