

Acknowledgements

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Abstract

The study examines advertising processing in the context of people's media use. Advertisements often appear in mass media vehicles, which people primarily attend to for reasons other than searching for information in advertisements. Hence, the following question arises: Do people's reasons for media use have implications for their subsequent processing of information from advertisements? This study argues that reasons for media use are important because they can influence how much attention audience members are willing to pay to different types of advertisements and the meaning they give to information in advertisements.

Audience members' reasons for media use are conceptualised as media goals. The research hypotheses make predictions as to the influence of a currently active media goal and the associated level of arousal on advertising processing. Specifically, hypotheses 1 and 2 argue that a currently active media goal directs attention to goal-relevant advertisements. In order to assess the relevance of an advertisement to a specific media goal, both advertisements and media goals are divided into predominantly informational and experiential ones. Hypotheses 3 and 4 predict that the content of advertising processing reflects the currently active media goal. Hypotheses 5 to 8 argue that higher levels of arousal strengthen the effects predicted by hypotheses 1 to 4.

Empirically the study examines the influence of magazine reading goals on the processing of magazine advertisements. An experiment is conducted to test the hypotheses. Research participants are female university students and the stimulus material includes a Finnish special interest magazine and four real advertisements.

The empirical study supported the argument that a currently active media goal dominates the content of thoughts that audience members generate in response to advertisements. Therefore, a "match" between the goal a person is pursuing during media use and the creative strategy of an advertisement should increase the likelihood that the person perceives the persuasive message as has been intended by the advertiser. At a more general level, the study suggests that advertisers might benefit from designing messages that are relevant from the point of view of the audience members' media goals. This would require highly integrated planning of creative and media strategy.

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1 Introduction

1.1 Background

Advertisers use media vehicles to deliver their messages to target audiences. There is a variety of media types and media vehicles from which the advertiser aims to select the best combination to carry the message to the desired audience. This task has become ever more challenging over the past decade due to changes in both the media and consumer markets. The objective of the advertiser, however, has remained the same. From the viewpoint of the advertiser, the task of the media is to carry the advertiser's message effectively and efficiently to the target audience (Ray 1982; Batra et al. 1996).

Advertising usually appears alongside other communications material. This may not be true in the case of direct advertising or various forms of outdoor advertising, but with the major print and broadcast media, advertising appears together with editorial and program material. It is noteworthy that despite the increasing number of media options, the traditional mass media vehicles such as newspapers, magazines, television, and radio continue to dominate as advertising media. In Finland, most of the total amount spent on advertising and promotional activities goes to advertising in newspapers, magazines, television, and radio, their share exceeding 50 per cent in 1998 (of total advertising spending: including all media advertising, direct advertising, and promotional activities). In 1998, the joint share of advertising in newspapers and magazines alone was 36 per cent of the total advertising and promotional spending (Figures provided by Gallup-Media Finland).

From the viewpoint of the audience member, however, advertising is not usually the primary information delivered by media. People use media to get many types of information ranging from weather forecasts to information that helps them interpret current social developments. The media provide many forms of entertainment, opportunities for social identification and comparison, and even a 'hyper-reality' which may become an important substitute for 'real' personal experiences and relationships with other people (Antonides and van Raaij 1998, 390-393; Katz et al.

1973). Thus, from the viewpoint of the audience member, commercial messages are but a small part of the media content. Occasionally people actively and primarily search for information in advertisements – for example, when they go through classified advertising in a newspaper in a search of a new flat, or when they look for quality and price information on computer software on the Internet. More typically, however, people encounter advertisements when they are not specifically looking for them (Thorson 1990).

Because advertisements are often a part of the content of a medium vehicle - like print advertisements in newspapers and magazines – the following question arises: Does the fact that an advertisement appears within a particular medium vehicle and surrounded by a particular content affect people's response to the advertisement? Indeed, such questions have been examined in numerous studies since the 1960s. This body of research is often referred to as *media context* research (chapter 2 will provide a review). The present study, also, aims to contribute to knowledge in this field.

1.2 Research question and theoretical framework

In broad terms, the study aims to increase knowledge of advertising processing in ordinary ad exposure situations. The focus is on people's media use: when advertising is part of the content of a medium vehicle, *people are exposed to advertisements as part of their media use*. Hence, the study first asks questions about media use (Katz 1959; Rosengren et al. 1985): Why do people choose to attend to a particular medium vehicle or content? Or more specifically, what are the goals people pursue when they attend to a particular vehicle or content? Essentially I argue that the questions about media use are important because they are likely to have implications for the subsequent processing of information from advertisements. The research question can be addressed as follows:

- Whether and how do the goals that people possess when they attend to a particular medium vehicle or content influence their processing of advertisements?

The study aims to contribute to the body of research that has examined whether media factors influence how people perceive and respond to advertisements. It is, however, distinct from prior studies in one important way. When the contextual influences of program or editorial material have been investigated, the framework has

been that of one stimulus (some property of a medium vehicle or editorial/program material) influencing a person's response to another stimulus (advertisement). This is the essence of the concept of media context (Singh and Hitchon 1989, 21). The present study proposes a different perspective. The study basically examines how a person's goals in a specific situation influence his or her subsequent information processing. Hence, the study is not about contextual effects in the sense that one stimulus (or response to one stimulus) would be argued to impact the reaction to another stimulus, but the focus is on examining how goals that are activated in a person's mind in a specific situation will affect the person's information processing in that situation. The goals that are of interest are those that the person relates to a specific media consumption activity, and the aspect of information processing that is of interest is the processing of advertisements.

I will argue that a focus on the goals which a person relates to a specific media consumption activity – *media goals*, hereon - opens up research to new and relevant questions. Previous research has examined a variety of media-related factors as a potential source of variation in audience perception of advertisements. However, the question of why a person chooses to attend to a particular medium vehicle or content in the first place has been largely ignored. This study argues that the goals concept provides a powerful tool for examining questions that have remained controversial or unanswered in previous research. This is because the goals concept includes both a cognitive and an affective element - a specific content and an associated motivational state - both of which have been shown to have consequences for subsequent information processing (Wright 1980; Eysenck 1982). Specifically, the research hypotheses suggest that in order to understand how media goals may affect subsequent advertising processing, it is important to consider the following three elements simultaneously: the "content" of the goal, the associated motivational state, and the type of the advertisement.

The theoretical framework and the specific research hypotheses are formulated by asking and answering the following questions (chapter 3):

- What are the properties and content of media goals?
- How can goals influence information processing?
- What dimensions of advertising processing can media goals impact?
- What constitutes relevant advertising information to a specific media goal?

When considering the question of the properties and content of media goals two streams of research become central: research on the goals concept in the study of motivation (Atkinson 1964; Bandura 1989; Gollwitzer and Bargh 1996) and gratificationist studies of media use (Katz et al. 1973; Rosengren et al. 1985). The theoretical explanation for the influence of goals on information processing is provided by research on how activated and accessible constructs in memory influence information processing (Bettman 1979; Wyer and Srull 1981; Ratneshwar et al. 1990; Yi 1990; Huffman and Houston 1993; Kruglanski 1996), and on research about the influence of arousal on information processing (Eysenck 1982; Kahneman 1973; Tavassoli et al. 1995). In order to develop empirically testable research hypotheses, the question of what constitutes relevant advertising information to a specific media goal needs to be answered. The relevance of advertising information to media goals is determined by dividing media goals as well as advertisements into two broad categories: informational and experiential ones. This dichotomy is a prevalent way of classifying motives in studies of media use (McGuire 1974; Panula 1993), and a similar type of dichotomy has been widely used to distinguish between different types of advertising strategies (Puto and Wells 1984; Rossiter et al. 1991).

The research hypotheses are next briefly characterised. Hypotheses 1 and 2 argue that activated media goals direct attention to goal-relevant advertisements. Hypotheses 3 and 4 predict that activated media goals also impact how a person interprets information in an advertisement: it is hypothesised that the content of advertising processing reflects the activated media goal. Hence, hypotheses 1 to 4 suggest that a goal that is activated in a particular media consumption situation affects two aspects of advertising processing: the amount of attention paid to different types of advertisements and the interpretation of, that is, meaning given to information in advertisements. Hypotheses 5 to 8 make predictions about the influence of the intensity of the goal pursuit (which will be conceptualised as arousal) on the amount and content of advertising processing. It is argued that higher (vs. lower) levels of arousal make the person allocate more attention to goal-relevant advertisements and make the person more likely to pay attention to goal-relevant information in an advertisement.

The empirical object of the study is the medium of magazines. Hence, empirically the study examines the influence of magazine reading goals on the processing of magazine

advertisements. The hypotheses will be tested by an experiment. The design is a randomised between-subjects one, with one manipulated independent variable (type of reading goal) and one measured independent variable (level of arousal). The dependent variables are the amount of attention and the content of advertising processing. These aspects of advertising processing will be inferred from the thoughts research participants verbalise in response to test advertisements. That is, data will be collected by the cognitive response method, and a content analytic procedure will be used to operationalise and quantify the amount of attention paid to advertisements and the content of advertising processing.

1.3 Justification for the research

The research question should be important on several practical and theoretical grounds.

The importance of media factors in the field of advertising has increased in the past years. This is due to several changes that make it ever more difficult for the advertiser to reach his or her target audience efficiently and with the desired effects. These changes include the proliferation of the number and variety of media alternatives, the associated fragmentation of media audiences, the fragmentation of consumer markets, the increasing technological means available for people to avoid advertising when they wish to do so, and the rising costs of prime time and space in many media (Katz 1990; Pieters and deKlerk-Warmerdam 1993; Batra et al. 1996). At a general level, therefore, media decisions have become more complicated, and the practitioners need more background information to make intelligent choices.

For an advertising practitioner, information on whether and how people process advertisements in ordinary exposure situations is most important. In the present study, the focus is on advertising processing as part of media use. This research focus is well justified as the majority of advertising spending is invested in advertising in mass media vehicles, which people primarily attend to for reasons other than searching for information in advertisements. Hence, the study aims to provide a more realistic account of how people process advertisements when they encounter them as part of their media use.

As previously said, the empirical object of the study is the medium of magazines and magazine advertisements. Even though magazines no longer have the role they used to have before television and the Internet, the fact that magazines are becoming ever more specialised in their content and in their audiences, makes them very desirable to advertisers who often aim to reach rather specific audiences (Batra et al. 1996, 24-25). In Finland, the time spent on reading magazines is among the highest in the world: in 1998, 82 per cent of the adult population read magazines during one weekday, and the average daily time spent on reading magazines reached 49 minutes. In the same year, magazine advertising's share of all media advertising was 16 per cent (figures provided by, Finnish Periodical Publishers' Association and Gallup-Media Finland). However, the main reason for choosing magazines and magazine advertisements as the object of the empirical study is related to the fact that when people choose to read a particular magazine they essentially choose to read a certain type of content. In other words, in the case of magazines it can be said that "the medium is the content" (Weibull 1985, 131). This characteristic of magazines makes it more straightforward to determine the actual object of media goals: it can be assumed that when a person chooses to read a particular magazine, the person's processing goals are directed toward reading a certain type of content. The importance of this point, and the theoretical and empirical scope of the study, will be discussed in more detail in the next section (section 1.4).

The study aims to contribute to the following fields of research. First, it aims to contribute to the body of studies that has examined how media factors influence advertising processing (e.g., Kennedy 1971; Aaker and Brown 1972; Mattes and Cantor 1982; Goldberg and Gorn 1987; Anand and Sternthal 1992; Lord et al. 1994). As has been said, previous research in the field has neglected the question of why a person chooses to attend to a particular media vehicle or content. This question is argued to have consequences for advertising processing and is thus worth investigating. Moreover, the focus on media goals can help us better understand previous research findings. In particular, it is argued that in order to understand whether increased arousal experienced during media exposure is likely to enhance advertising processing, one needs to consider simultaneously the level of arousal, the type of reading goal and the type of advertisement.

Second, the study adds to the (surprisingly) sparse body of *empirical* studies on how goals influence advertising processing (e.g., Huffman and Houston 1993; Peterman

1997). It also broadens the perspective usually adopted in persuasion studies: the goals concept has mainly referred to consumers' product choice goals, and accordingly, the question has been how product or brand related goals influence information processing or decision making. Because people often have other goals than product choice goals in mind when they encounter advertisements – such as media goals - the study aims to suggest a more realistic view of advertising processing.

Third, the study provides a link between studies of media use and advertising processing research. If media goals can indeed be shown to impact the subsequent processing of information in advertisements, advertising processing research should benefit from knowledge generated by studies of media use in communications literature (e.g., Blumler and Katz 1974; Rosengren et al. 1985)

The research findings are not assumed to lead to direct normative suggestions for the advertising (or media) practitioners. The research hypotheses make predictions as to the influence of different types of media goals on the amount and content of information processing from different types of advertisements. The possibility of utilising the findings in media decisions will depend on two things: first, on the practicability of gathering information on audience members' media goals in particular situations; second, on the practitioner's ability to consider how changes in the amount and content of advertising processing impact the desired communication effects. Implications for practice will be discussed in the Conclusions (chapter 7).

1.4 Key assumptions and scope of the study

The key assumption of the study is that media use is goal-directed. That is, it is assumed that much of media use is a result of audience members knowingly selecting to attend to those media alternatives that they view as likely to fulfil their needs. This assumption is a cornerstone of the gratificationist tradition in media research (Katz 1959; Katz et al. 1974; Evans 1990). It is important to note that the assumption of goal-directed media use does not suggest that people would put great effort in selecting between media options (or other activities), or that they would make optimal choices in terms of their needs. Neither does it mean that media use should be a highly intensive activity – that is, 'just-to-kill-time' is one potential and probably quite common media goal. Hence, the assumption of goal-directed media use simply

means that when people attend to a particular vehicle or content, they have a reason for doing so.

The reasons for media use are conceptualised as media goals. Media goals are directed toward a specific media consumption activity. It is critical to carefully consider the *object* of a media goal. The question of the object of a media goal is discussed next at relative length, because it has implications for the theoretical and empirical scope of the study. The following television example illustrates what is meant by ‘the object of a media goal’. When people watch television they may have many goals: they may hope to be stimulated, have a good laugh, get new ideas for cooking, stay on top of what is happening, learn about themselves, and so forth. But what is the stimulus toward which these goals are directed? In other words, what is the specific object of viewing goals? The following alternatives, at least, seem plausible: Viewing is directed toward watching 1) television as a medium (one turns on the television and sits back in order to relax, the object is the general flow of events on television); 2) a specific channel (one turns on the news channel to be informed about what is happening in the world, but switches to a commercial movie channel to forget daily worries); 3) a particular program (for example, ‘Thirty something’ was watched to learn about oneself, but ‘Soap’ to have a good laugh); or, 4) even a segment of a program (for example, weather forecast in a news broadcast).

It is obvious that the object of a media goal is dependent on the medium, the individual, and perhaps upon the particular situation. Hence, the right level of analysis is likely to remain an empirical question of how the person him- or herself sees the situation. However, the magazine is chosen as the medium which is empirically examined, because the object of media goals is easier to determine in the case of magazines than it is, for instance, in the case of television. In the case of magazines, “the medium is the content” (Weibull 1985, 131): it can be assumed that when a person selects to attend to a particular magazine, he or she simultaneously selects to attend to a certain type of content. The object of processing goals, therefore, is a certain type of content that a reader expects the magazine to provide him or her with. In brief, it is here assumed here that magazine reading goals are directed toward a certain type of content, and reading goals will be manipulated accordingly in the experimental study.

An empirical focus on magazines, however, does not mean that the findings of the study were only relevant to magazine advertising. Theoretically, the study examines how goals related to a particular media consumption activity influence information processing from relevant media content. It can be argued that the results should hold in all media as long as the level of analysis of the object of media goals and the content which is expected to be influenced by media goals remains the same. In the present study, the empirical object of processing goals is the entirety of magazine content – both editorial material and advertisements – even though the research interest is only in the processing of advertisements. The possibility to generalise research findings across media vehicles will be reconsidered in the Conclusions (chapter 7).

The scope of the study is delimited by the kind of advertising that is examined. It is easier to specify what is meant by saying what is excluded. What is excluded is that branch of advertising that is usually called ‘classified’ advertising – for example, a property agent’s list of apartments for sale, or private people’s announcements of second-hand cars for sale. Classified advertising is not included because it is exactly the kind of advertising that people purposefully go looking for (Bullmore 1999). In the present study, the purpose is to examine advertising processing as part of people’s media use, that is, when they are not primarily looking for information in advertisements. Hence, the persuasive advertising that is most often examined is also the focus of this study. It is advertising that uses a variety of appeals to draw attention to it, for people do not actively look for it.

Finally, it needs to be emphasised that when advertising processing is examined as part of media use, it is assumed that the person has already been exposed to the media vehicle. Hence, questions about how to reach the desired audience through alternative media vehicles fall outside the scope of the study.

1.5 Definitions

The key concepts of the study are *media goals*, *arousal*, and *advertising processing*. The specific content given to them is already a part of the answer to the research question. Therefore, the definitions below are not a priori, but they are formulated and justified at the same time as the theoretical framework of the study is developed. The definitions are presented here to give the reader a pre-understanding of the

theoretical bases of the study. In parentheses are the researchers on whose work the definitions are mainly based.

Goal. Refers to a person's cognition of what she or he is pursuing in a particular situation and to an associated inner state of arousal (Pervin 1989a; Bandura 1989; Atkinson 1964).

Media goal. An audience member's cognition of the processing goal she or he is pursuing when attending to a particular medium vehicle or content.

Arousal. Inner state of activation that a person experiences as a result of investment of mental resources to a task (Eysenck 1982). In particular, arousal refers to the inner state of activation that is associated with the goal pursuit in the present study.

Advertising information. Includes all elements in an advertisement – both message or product relevant information as well as executional aspects (Petty and Cacioppo 1986).

Information processing. Mental operations used by the human mind to make sense of internal and external reality. Mental operations (e.g., inference-drawing) are not directly observable and they must always be inferred. Information processing is inferred by examining characteristics of its output (Harris 1983).

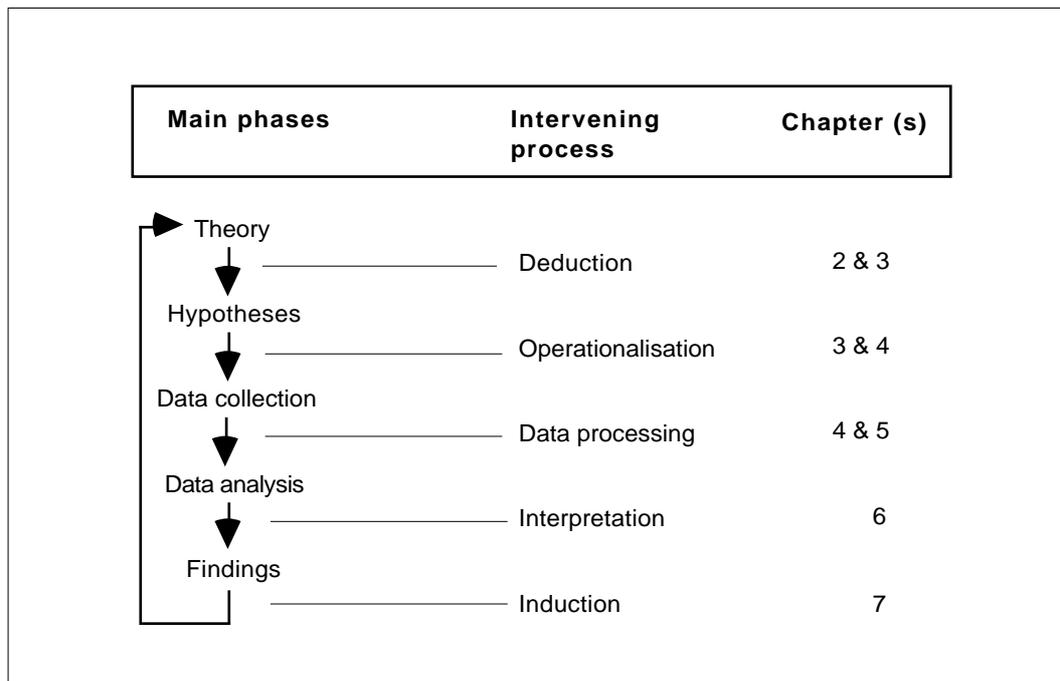
Advertising processing. Includes the extensiveness aspect of processing and the content of information processing. Extensiveness of processing refers to the amount of attention and processing effort a person allocates to an advertisement. Content of processing refers to the type of thoughts the person generates in response to the advertisement (Celsi and Olson 1988; MacInnis and Jaworski 1989).

1.6 Outline of the thesis

This chapter has introduced and justified the core research question, and discussed the key assumptions, definitions, and scope of the study. The research itself is described in chapters 2 to 7.

The study follows a deductive logic in which research hypotheses are first developed based on prior research and then subjected to an empirical test. Hence, it follows the logical structure of a quantitative research process illustrated on the left-hand side of Figure 1 (Bryman 1988). The right-hand side of the figure gives a rough idea of how chapters of the present study encapsulate the research process.

Figure 1. The quantitative research process.



Source: Bryman 1988, p.7

Chapter 2 reviews studies that have examined whether and how media factors can influence how people perceive and respond to advertisements. The aim is to identify new relevant research questions. The decision to focus on media goals and arousal as the key independent variables of the study is the outcome of the chapter.

Chapter 3 develops the theoretical framework for explaining how media goals can influence information processing. It begins by discussing the concept of goals and by analysing the properties of media goals. Then the discussion focuses on what is known about how activated constructs in memory and arousal influence advertising processing, which leads to the specification of research hypotheses.

Methodological choices are justified in chapter 4. The purpose is to present and justify the experimental approach which will be used to test the research hypotheses empirically. In addition, empirical data and analytical procedures are described. The chapter also develops operational definitions for key variables, and presents the research hypotheses in operational terms.

Chapter 5 reports two pretests. The two pretests have only instrumental value: they are included to provide the reader with thorough empirical justification for the data collection and analysis procedures as well as manipulations that will be used to test the research hypotheses in chapter 6. The first pretest aims to establish a sensitive cognitive response elicitation procedure. Further, a content analytic procedure to analyse the cognitive response data is specified. The second pretest develops the manipulation for reading goals and provides an operationalisation for arousal.

Chapter 6 presents the hypotheses testing experiment. The focus is on the analysis of data and on the empirical results. Analysis of data and empirical findings for each research hypotheses in turn comprise the chief content of the chapter.

The thesis concludes with chapter 7. It summarises the research findings and discusses them within the context of prior literature. Implications for practice and further research are provided.

2 Literature review on media context research

This chapter reviews the literature to identify questions worth investigating in the field of interest. The field of interest is the body of studies that have examined whether and how media factors can influence how people perceive and respond to advertisements. A large number of studies have been conducted in this field. Nevertheless, the question remains worth investigating as the findings have been controversial. It will be argued that the present research focus - that is, focus on media goals - raises new relevant questions, and that the answers to these questions will contribute to a more integrated set of knowledge in the field.

Section 2.1 is a summary of studies which examine the impact of media factors on people's perception of advertisements. It does not aim to be a comprehensive summary. Rather, the purpose is to provide the reader with an overall picture of the type of studies in the field. More comprehensive reviews can be found elsewhere: For example, Schumann and Thorson (1990) as well as Singh and Hitchon (1989) have reviewed studies that investigate when and how television programming affects advertising processing. Appel (1987) has reviewed the literature on the influence of the editorial environment upon the perception of advertisements. I have reviewed studies in the field by producing a classification in which media factors are categorised according to their likely influence on consumer motivation, ability, and opportunity to process information from advertisements (Juntunen 1995). Section 2.2 is a more detailed analysis of studies investigating the effect of *program- or editorial-induced involvement* on advertising processing. These studies are of particular relevance because it was the synthesis of these studies that suggested the present research focus. The final section (2.3) introduces propositions for the study, which will be developed into research hypotheses in chapter 3.

2.1 Overview of studies

Historically, the interest in the question of how media factors can influence perception of advertisements was an extension of the work which examined how the media reached the desired target audience. As Weilbacher wrote in the *Journal of Advertising Research* in 1960 (p.12): "Increasing awareness of the precise size of

media exposure potentials is leading to the desire for knowledge of what happens to an exposed person as a result of the placement of a particular advertising message in one medium rather than another, or in one medium vehicle rather than another.” The interest in the ”quality” of advertising exposure as a function of media factors emerged largely from the initiative of practitioners. It was a logical next step when quantitative audience measurements of the size and profiles of audiences for major media started to be established in the United States. This practitioner interest is apparent in the early studies such as those conducted by *Fortune* magazine (1959), *McCall’s* magazine (1962), and the one sponsored by *Life* (1962) (ref. in Appel 1987).

The body of research examining the influence of media factors on the perception of advertisements is heterogeneous: a variety of independent media variables as well as dependent advertising response variables have been looked at. Also, various theoretical frameworks and research methods have been employed (Schumann and Thorson 1990). This variety should, on the one hand, only help us understand the complexity of influences which may be taking place in any natural ad exposure situation, and as such, it is a strength. On the other hand, the variety of conceptual and operational definitions makes it difficult to compare research findings across the studies.

The term 'media context' has been widely used to refer to the *communications material* that is delivered by the medium vehicle and that surrounds the advertisement(s) of interest. Hence, editorial material in print media and program material in broadcast media as well as other advertisements constitute the media context which may influence how consumers perceive and respond to a target advertisement. For example, Yuspeh (1979; ref. in Singh and Hitchon 1989) found that the recall score for an advertisement varied depending on the specific television program in which it was tested. Webb and Ray (1979) examined the contextual influence of other advertisements: they found that an increase in the number of commercial messages within and between television programs had a negative effect on recall for any individual advertisement (similar findings, in Pieters and de Klerk-Warmerdam 1993). These studies are mentioned as examples of studies in which media context actually refers to the communications material that surrounds the target advertisement. More often, it is not this material in itself that has been looked at, but *audience perception* of it, or *audience reactions* induced by exposure to it.

Audience perception of editorial material was the media property whose influence was examined in the early studies. A common assumption was that audience perception of editorial content generalises to their perception of advertising. For example, characteristics such as authority, believability, timeliness, and prestige of a magazine were assumed to impact the perception of advertisements in a congruent way (Weilbacher 1960; Fuchs 1964; Aaker and Brown 1972). Some support for such 'carry-over' effects has been found (Winick 1962; Aaker and Brown 1972). However, as Appel (1987) points out, studies which have actually placed advertisements within real publications (instead of only attributing them to specific publications) have not given strong support to this carry-over -hypothesis.

Also, when liking of a television or a radio program has been examined, it is audience perception of media material that is focused upon. For example, Clancy and Kweskin (1971) found in their survey that viewers who had a very positive attitude toward the program were more likely to recall embedded advertisements than those with a less positive or negative attitude. Experiments conducted by Murry, Lastovicka, and Singh (1992) and Lord, Lee, and Sauer (1994) gave support to the argument that liking a program (television in the former, radio in the latter study) positively influences attitude toward the advertisements, and thereby, attitude toward the brands advertised. The influence of program liking has been explained in terms of a direct transfer of affect from the program to the advertisement, as well as in terms of increased motivation to process advertisements in a well-liked context (Murry et al. 1992; Lord et al. 1994).

Most often research interest has concentrated on whether and how *audience reactions induced by context material* impact their perception of advertising. These reactions include mood or feeling states (Axelrod 1963; Goldberg and Gorn 1987; Murry et al. 1992; Prasad and Smith 1994; Aylesworth and MacKenzie 1998), arousal (Mattes and Cantor 1982; Pavelchak et al. 1988; Broach et al. 1995), and involvement (Bryant and Comisky 1978; Soldow and Principe 1981; Norris and Colman 1992; Anand and Sternthal 1992; Uusitalo et al. 1992; Lord and Burnkrant 1993; Lord et al. 1994; Tavassoli et al. 1995). The common assumption has been that program- or editorial-induced mood, arousal, or involvement will continue to be experienced during exposure to advertisements, and hence influence audience responses to the advertisements (Goldberg and Gorn 1987; Mattes and Cantor 1982). Let us next look

briefly at some findings of these studies and the theoretical explanations advanced in them.

Studies on context induced mood have demonstrated that mood can affect both evaluation of advertisements as well as the amount of information processing from advertisements. First, it has been argued that program induced mood automatically increases mood congruent material in memory, and thereby influences evaluations of advertisements in a direction consistent with the valence of the mood state (Goldberg and Gorn 1987; Gardner and Wilhelm 1987; Mathur and Chattopadhyay 1991). Alternatively, the effect of mood on the evaluation of advertisements has been argued to result from direct transfer of affect between two temporarily associated stimuli (Goldberg and Gorn 1987). Second, there is evidence that people recall advertisements better when they are shown within a happy program rather than a sad one (Goldberg and Gorn 1987, study 2; Mathur and Chattopadhyay 1991). The argument is that happy mood states activate broader and better integrated knowledge structures in memory, which facilitates the systematic processing of information (Isen 1984). However, a competing view suggests that happy mood states may negatively affect the systematic processing of advertising information. This would be the case when people deliberately avoid processing of advertisements, because it could disrupt and change their current positive feeling state (Clark and Isen 1982; Kuykendall and Keating 1990).

Likewise studies on mood states, studies on context induced arousal have shown that arousal can affect the evaluation of and amount of information processing from advertisements. First, context induced arousal has been found to intensify evaluations of subsequent advertisements (Mattes and Cantor 1982). The explanation is based on the excitation transfer paradigm (Zillmann 1971): when high levels of program elicited arousal are still experienced during exposure to an advertisement, it is possible that the person incorrectly attributes the intensity of the emotional state to the advertisement, which can intensify his or her response to it. Second, context induced arousal has been shown to negatively affect the amount of advertising processing. The argument is that as arousal increases, people's attention will be increasingly devoted to the program or editorial material, which limits the availability of the cognitive resources needed for advertising processing (Pavelchak et al. 1988; Broach et al. 1995; Norris and Colman 1992). However, Tavassoli and his co-workers (1995) found support for the argument that it is moderate levels of program induced arousal (rather

than very low or very high levels) that enhance viewers' ability to consider advertising messages in depth.

Overall, the studies above are to illustrate the variety of independent media variables, and the dependent advertising processing or response variables, as well as the theoretical frameworks that have been employed. One important aspect not yet discussed is the type of the advertisement. Usually, studies have aimed to generalise the predicted effect across advertisements. However, there exist several studies which have investigated the interaction between an independent media variable and the type of advertising message. For example, Aaker and Brown (1972) found that image advertisements performed better in a prestige magazine, and factual advertisements were more effective in an expert vehicle. In a study by Cannon (1992), the similarity between the value orientation of an advertisement and the value profile of a magazine predicted advertising effectiveness in terms of a recognition measure. Goldberg and Gorn (1987) hypothesised that the mood created by a television program (happy or sad) influences viewers' responses to emotionally oriented advertisements more than their responses to informational advertisements, but for the most part, the hypothesis did not get support. Finally, studies focusing on program involvement have examined some specific advertising message characteristics: Lord and Burnkrant (1993) examined the capacity of an advertisement to engage viewers' attention, and Anand and Sternthal (1992) the ease with which the message can be counterargued. In both studies, the basic argument was that viewers' involvement in the program disrupts processing of advertising information. Lord and Burnkrant (1993) suggested that an attention getting device in an advertisement helps viewers pay attention to it even within a highly involving program segment. Anand and Sternthal (1992) hypothesised that when an advertising message is easy to counterargue, an increase in program involvement leads to a decrease in counterargumentation, and consequently, to a more favourable brand evaluation. In both studies, the data supported the hypotheses.

The purpose of this section has been to provide the reader with an overall picture of the type of studies that have been conducted in the field. The next section synthesises studies that have focused on program or editorial induced involvement. As has been said, the analysis of these studies (section 2.2) leads to research propositions for the present study (section 2.3).

2.2 *Involvement in media context studies*

2.2.1 Conceptual treatment of involvement – Rajaniemi’s classification

Program or editorial induced involvement is the property of media context that has been examined most often. However, the term is not treated consistently across the studies. It sometimes refers to *perceived importance* of program or editorial content, sometimes to *arousal*, and on still in other occasions to the *extensiveness of information processing*. Most confusion is probably created by studies that use the construct as a catch-all term for audience interest in, arousal induced by, and extent of processing of the program or editorial material.

Quite simply, in order to understand what has actually been found in the studies, one first needs to identify how involvement has been conceptualised and operationalised in them (section 2.2.1). Thereafter, it becomes possible to synthesise the research findings (section 2.2.2), and to identify relevant future research questions (section 2.3).

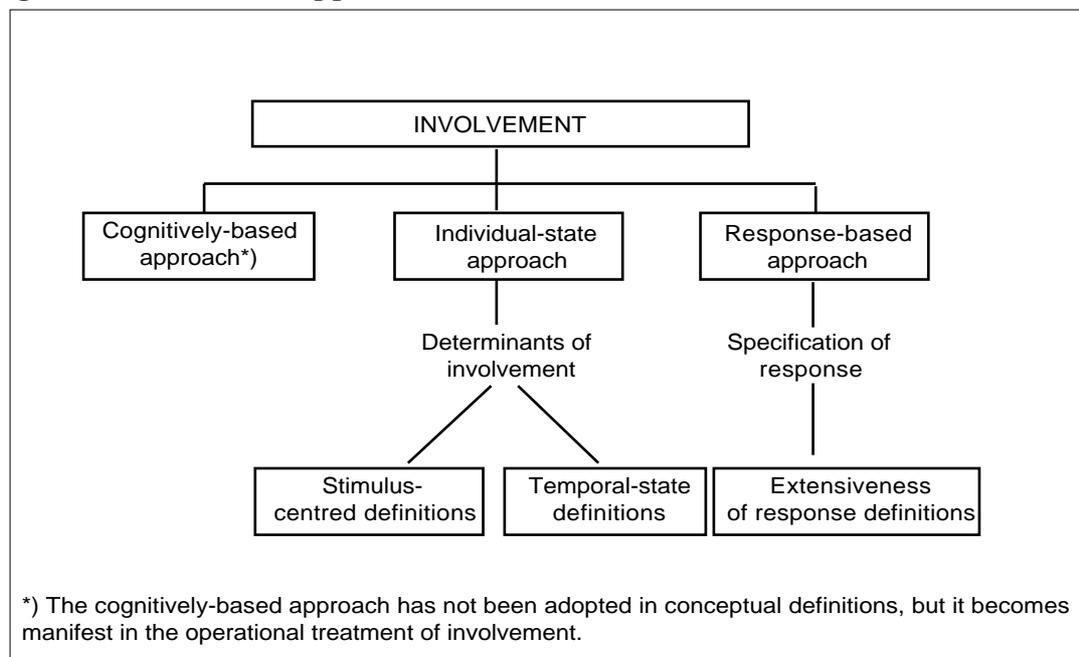
To identify how involvement has been conceptualised, studies¹ are categorised according to the classification scheme proposed by Rajaniemi (1992). Her classification scheme distinguishes between different types of meanings given to the concept of involvement within the consumer behaviour literature.² Specifically, Rajaniemi identifies three main types of definitions given to involvement, which she

¹ The analysis is based on 12 studies, in which the influence of editorial or program induced involvement has been investigated. One study uses magazine articles as its experimental material, all other studies have been conducted in broadcast media environments. A few of the studies do not explicitly employ the term involvement, but they essentially examine the same phenomenon as the rest of the studies. No effort was made to identify all published studies in the field. The purpose of the analysis was to generate new and relevant research questions, and for that purpose, the twelve studies provided adequate data. A more detailed analysis of the studies is presented in Juntunen (1997).

² In her doctoral dissertation, Rajaniemi (1992) analyses the definitions of involvement presented in consumer behaviour literature in order to reveal the meaning and content of the construct as well as the relationships of involvement to contiguous variables. Such conceptual analyses have been conducted by others: for example, in their review article, Muehling and his co-authors (1993) end up with a fairly similar three-fold classification scheme as Rajaniemi. However, Rajaniemi’s analysis is especially worthwhile here, as it specifically examines the concept of involvement in terms of its antecedents and consequences, as well as clarifies its differentiation from closely related concepts. As a result, her classification scheme helps synthesise findings of the studies investigating the effect of program or editorial induced involvement on advertising processing.

labels cognitively-based, individual-state, and response-based definitions. These three types of approaches to involvement are now briefly described, then studies on program and editorial involvement are characterised according to their conceptual and operational treatment of involvement. Figure 2 summarises the approaches to involvement that have been followed in media context studies.

Figure 2. Definitional approaches to involvement in media context studies.



Source: Adapted from Rajaniemi 1992, 90.

First, *cognitively-based definitions* refer "to the strength or extent of the psychological linkage between an individual and a stimulus object" (Rajaniemi 1992, 39). This psychological linkage means that an object is perceived to be relevant to a person's values and motives, in other words, involvement is the degree of importance of an object to a person. Hence, involvement is a rather enduring relationship between a person and an object, which is often a product or brand (e.g., Bloch 1981, 127-128; ref. in Rajaniemi 1992, 40).

Second, *individual-state definitions* view involvement as an individual's internal state of mind that is induced by a stimulus in a specific situation. Hence, it is treated as synonymous with concepts such as interest, arousal, activation and/or motivation. Rajaniemi further distinguishes between subcategories in individual-state definitions: *stimulus-centered* definitions hold that it is the characteristics of a stimulus that

determine involvement; *temporal-state* definitions view involvement as a joint product of individual, stimulus, and situational factors. In consumer behaviour literature, temporal-state definitions of involvement are most prevalent. Accordingly, involvement is seen as a motivational state aroused as a reaction to a stimulus - for example, by exposure to an advertisement, or by an activity such as shopping or television viewing (e.g., Mitchell 1981, 25).

Third, *response-based definitions* determine involvement by describing an actualised response of an individual created by a stimulus object. The idea is to study involvement in terms of a response itself rather than as a motivational state that can affect that response. For example, in *extensiveness-of-response* based definitions, involvement has been determined by describing the extensiveness of an individual's information processing (e.g., Batra and Ray 1983, 309; ref. in Rajaniemi 1990, 76).

In studies examining the impact of a person's involvement in program or editorial material, the conceptual treatment of involvement has followed either an individual-state approach or a response-based approach. Of the studies following an individual-state approach, most seem to correspond to a temporal-state definition: involvement is seen as a mental state of an individual generated as a reaction to program or editorial material, which influences the person's subsequent response to advertisements (Soldow and Principe 1981; Norris and Colman 1992; Lord et al. 1994; Tavassoli et al. 1995). In some of these studies, involvement has been specified as arousal. For example, Lord and his co-authors (1994) determined involvement as cognitive arousal potential of radio programming, and Tavassoli and his colleagues (1995) defined involvement intensity as an internal state of arousal that television viewers experience as a consequence of program exposure. The theoretical explanation of these studies is then based on knowledge about how arousal influences information processing, and hence, they essentially examine the impact of program induced arousal on subsequent processing of information in advertisements (likewise studies by, Mattes and Cantor 1982; Pavelchak et al. 1988; Broach et al. 1995).

At least one study has adopted a stimulus-centred view. That is the study by Kennedy (1971), which is usually considered to be the first study in the field, in spite of the fact that Kennedy did not use the term involvement. He focused on the 'drive for closure' a television program can create in its viewers. Nevertheless, by 'drive for

closure' he aimed to capture a motivational state created in viewers as a reaction to specific program characteristics.

When context induced involvement has not referred to an individual's state of mind, it has corresponded to an extensiveness-of-response based definition. That is, involvement refers to the extensiveness of cognitive elaboration the person engages in while watching a television program or while listening to a radio broadcast. In these studies, the main argument has been that ongoing processing of program content during exposure to an advertisement negatively affects information processing from the advertisement (Bryant and Comisky 1978; Lord and Burnkrant 1988, 1993; Anand and Sternthal 1992).

To sum up, a person's involvement in program or editorial material has been defined either as an individual state - and in particular, as a temporal state induced by program or editorial material - or, as extensiveness of context induced cognitive elaboration. It is important to point out that this categorisation is based on a conceptual treatment of involvement in the studies. Empirical treatment of involvement, however, has not always corresponded well to the theoretical argumentation. For example, Lord and his colleagues (1994) defined involvement as cognitive arousal, but measured it by five items from Zaichkowsky's PII (Personal Involvement Inventory), which basically measures perceived importance of the program to the person - hence, implying a cognitively-based view of involvement. In a similar way, Tavassoli and his colleagues (1995) focused on involvement intensity, which they conceptualised as arousal induced by a television program. Nevertheless, when measuring involvement, along with items that measure the level of arousal, they included items that capture enduring antecedents of program involvement - again implying a cognitively-based approach to involvement. Finally, the measurement instrument employed by Norris and Coleman (1992) asked research participants to assess how they felt while reading the magazine article (temporal-state), how much cognitive resources they devoted to reading (extensiveness-of-response), as well as how relevant they found the article (cognitively-based). The problem is that it remains unclear whether the findings of these studies can indeed be explained in terms of the theoretical argumentation advanced in the studies. For simplicity, however, the following synthesis categorises research findings based on how involvement has been treated conceptually in the studies.

2.2.2 Synthesis of research findings

This section first summarises research findings of the studies that have adopted a temporal-state perspective to program and editorial involvement, then it summarises findings of the studies that have treated involvement as extensiveness of cognitive elaboration during program exposure.

Context induced involvement as a temporal state

The most robust finding of these studies is that high levels of program or editorial involvement, compared to low levels, impair memory for advertisements. At high levels of context induced involvement, unaided recall of brand name (Kennedy 1971), recall of brand name and sales message (Soldow and Principe 1981), ad recall (Pavelchak et al. 1988), and, ad recall and recognition (Norris and Colman 1992) have been shown to be reduced. Tavassoli and his co-workers (1995) compared three levels of involvement instead of the low/high dichotomy. They found that brand recall and recognition were lower when involvement was either at a very low or at a very high level than when it was at a moderate level. Although the explanations provided for the adverse influence of high involvement on advertising memory vary to some extent, they can be summarised as follows: Involvement in a program or a magazine article narrows and focuses attention on this involvement inducing stimulus at the expense of any distracting or interrupting advertisements (Kennedy 1971; Soldow and Principe 1981; Pavelchak et al. 1988; Norris and Colman 1992). Therefore, a highly involving context decreases audience members' motivation to pay attention to advertisements, and the resulting attentional deficits in processing advertisements lead to impaired memory for them.

When the dependent variable has been brand or ad attitude, two patterns of results have emerged. First, at high levels of program induced involvement brand and ad evaluations have been shown to be more favourable than at low levels of involvement (Kennedy 1971; Mattes and Cantor 1982; Lord et al. 1994). This enhancement has been explained by audience members' increased motivation to process advertising information when cognitive arousal is at a high or moderate level (Lord et al. 1994; Tavassoli et al. 1995), and, by the intensifying influence of high arousal on evaluation of subsequent advertisements (Mattes and Cantor 1982). Second, Broach and his co-authors predicted (1995) that program induced arousal and the hedonic tone of the

program (pleasant vs. unpleasant) interact. Specifically, they found evidence for the argument that high arousal programs produce assimilation effects on ad evaluations (for instance, a pleasant program leads to a more favourable ad evaluation) while low arousal programs are likely to produce contrast effects (for instance, a pleasant program leads to a less favourable ad evaluation). Assimilation was expected to occur because high arousal limits the availability of the cognitive resources needed for ad processing, whereas in low arousal contexts more cognitive resources are likely to be available for the more demanding contrast strategy.

In sum, when program and editorial induced involvement has been conceptualised as a temporal state, the findings show that at high levels of involvement, memory for advertisements is reduced whereas attitude toward advertisements or brands advertised is most often enhanced or intensified. Most often, empirical findings of the impact of high involvement have been explained in terms of audience members' decreased motivation to pay attention to advertisements and reduced availability of cognitive resources needed for ad processing. However, some studies offer quite a contradictory explanation for their findings: it has been argued that a high arousal context *increases* a person's motivation to process advertisements as it favourably impacts activation of the person's cognitive resources.

Context induced involvement as extensiveness of cognitive elaboration

When involvement has been treated as extensiveness of cognitive elaboration during program exposure, the findings on memory for advertisements are consistent with the ones suggested by the studies following the temporal-state approach. Bryant and Comisky (1978) and Lord and Burnkrant (1988) found that when involvement in program segments was at a high level, compared to a low level, recall of advertisements was reduced. Both of the studies concluded that ongoing program elaboration during ad exposure interferes with viewers' ability to process advertisements, and consequently, negatively affects ad recall. Also, Anand and Sternthal (1992) reasoned along comparable lines in arguing that programs can act as distractors, reducing the processing of an accompanying advertising message. Specifically, they argued that high program involvement distracts consumers from generating those cognitive responses that are most available in a situation: counter-arguments when the message is easy to counter-argue, but support-arguments when it is difficult to counter-argue. Hence, depending on the type of the message – the ease

with which it can be counter-argued – high program involvement can lead either to more or less favourable brand evaluations.

Lord and Burnkrant (1988) also found that though ad recall was reduced under a high involvement program condition, viewers, nevertheless, generated more ad-related cognitive responses. In a later study (1993), they concluded that though high program involvement can damage viewers' ability to process information in advertisements, it may, at the same time, boost their motivation to process advertising information by elevating the level of cognitive resource activation.

On the whole, the summary of findings and explanations from the two categories of studies suggests that the influence of program or editorial induced involvement on advertising response can be explained by its *influence on audience members' motivation and ability to process information in advertisements*. Within the temporal-state approach, motivational explanations have been emphasised. Within the extensiveness-of-response based approach, audience members' ability to process information in advertisements has been the core explanatory concept. However, it remains unclear whether or when high arousal induced by context material leads to a decrease, or to an increase in audience members' motivation to pay attention to advertisements. The decrease in motivation has been explained in terms of narrowing of attention to arousal inducing context material at the expense of advertisements; the increase in motivation in terms of higher level of cognitive resource activation in high arousal contexts. Ongoing elaboration of program material during ad exposure has consistently been shown to negatively affect audience members' ability to process information in advertisements.

On a general level, it seems that future research would benefit from asking further questions about the *motivational role of media factors* in impacting advertising processing. It will next be argued that in order to understand a person's motivation to process advertisements within a particular media content, one needs to ask and answer the question of why the person chooses to attend to a particular media content in the first place. This is important because it is likely to influence what type of advertisements the person will be motivated to pay attention to. Moreover, it will be argued that the impact of context induced arousal cannot be understood without simultaneously taking into account the question of why a person attends to a particular media content, and the type of the advertisement.

2.3 Research propositions

When involvement has been conceptualised as an individual's mental state induced by program or editorial exposure, the concept of arousal has often been employed to provide an explanation for the effects of interest. Arousal is basically a non-specific, general state of alertness or activation, which is specified in terms of its intensity (Berlyne 1960; Eysenck 1982). Such a theoretically sound conceptualisation of arousal is explicit in some of the studies, however, in others conceptualising involvement as arousal leads to inconsistencies in the conceptual and operational treatment of the concept. This is because it is felt that something characteristic of involvement is left out if it is simply measured by the level of general activation. Therefore, items are often included in the measurement instrument that describe the importance of program or article content to the individual along with items that capture a general state of activation. These studies essentially argue that it is the *intensity* of involvement that is conceptualised as arousal while the *direction* of involvement is specified by saying that involvement is directed toward the program or article content. Because involvement is directed toward the program or article content, it is suggested that as the level of involvement (arousal) increases, an individual's attention is increasingly devoted to program or article content, and away from advertisements.

However, what has been left out when involvement is conceptualised as a state of arousal that is directed toward program or article content, is the motivational role of viewing/listening to a program or reading of an article. That is, programs and articles are attended to for some reason, and consequently, the state of *arousal is experienced for some reason*. This is different from saying that involvement is directed toward program or article material. When the state of arousal is experienced for some reason it is best viewed as a motivational state which is not directed toward some object per se, but it is directed toward some goal object or need gratification that this object can provide (Atkinson 1964; Park and Mittal 1985). For example, in a magazine reading situation, a reader's motivation may be directed toward getting more information on some topic or toward being entertained. Therefore, the motivational state is not

directed toward the article per se, but it is directed toward some need gratification that this article can provide.

The present study argues that a person's reasons for attending to a particular media content as well as the experienced state of arousal are likely to jointly influence the person's subsequent information processing from advertisements. The reasons for media use can be conceptualised as goals the person pursues when he or she attends to a particular media content. The concept of goals provides a theoretical framework for examining the influence of interest. Most importantly, goals that are active in a specific situation stimulate motivation to pay attention to goal-relevant stimuli (Krech et al. 1962; Atkinson 1964; Park and Mittal 1985). This leads to the first proposition:

P1: An advertisement's relevance to the goal(s) a person pursues when he or she attends to a particular media content, increases attention to the advertisement.

In fact, the above proposition might explain the fact that context induced arousal has been found to both enhance and inhibit audience members' motivation to pay attention to advertisements. It has been suggested that context induced arousal can increase the attention paid to advertisements because of the higher level of cognitive resource activation that is associated with high arousal. When an advertisement is perceived to be relevant to the goal a person pursues in a particular media exposure situation, it is likely that higher levels of arousal have a favourable effect on attention to the advertisement. The second proposition is:

P2: When an advertisement is relevant to the goal(s) a person pursues when he or she attends to a particular media content, higher levels of arousal increase attention to the advertisement.

As said, it has also been suggested that context induced arousal decreases the motivation to pay attention to advertisements. The argument is that increased arousal narrows audience members' attention to the arousal inducing program or article material at the expense of the advertisements. It is reasonable to hypothesise that this effect would take place when an advertisement is not perceived as relevant to a person's current processing goal. In such a situation, the person's processing motivation is indeed directed away from the advertisement. The third proposition is:

P3: When an advertisement is *not* relevant to the goal(s) a person pursues when he or she attends to a particular media content, higher levels of arousal *decrease* attention to the advertisement.

In addition to influencing attention paid to advertisements, the goal(s) a person has in a specific media consumption situation may impact the content of information processing from advertisements. This is because the goal that is active in a person's mind in a specific situation is likely to enhance accessibility of goal-relevant material from the person's memory (Bettman 1979; Wright 1980; Mitchell 1983). Given that attention has been directed to some piece of information, this information needs to be encoded in the person's mind. The fourth proposition suggests:

P4: The goal(s) a person pursues when he or she attends to a particular media content is (are) reflected in the content of information processing from advertisements.

The above propositions are preliminary. They are best seen as guidelines for developing research hypotheses. The main insight provided by the literature review and analysis conducted in the present chapter is the focus on the concept of goals: People choose to attend to a particular media content for some reasons. These reasons can be conceptualised as goals that people pursue when they attend to a specific media content. The propositions outline how these media goals may impact advertising processing. In particular, it is argued that it is worth investigating the following three factors simultaneously: media goals, arousal, and the type of the advertisement. The propositions will be specified both in terms of the theoretical concepts as well as in terms of the suggested influences in the next chapter (chapter 3), which develops the research hypotheses.

3 Developing research hypotheses – how media goals influence advertising processing?

The purpose of this chapter is to develop the specific research hypotheses. The formulation of the research hypotheses includes the following steps: First, section 3.1 characterises and specifies the concept of goals and the properties of media goals. Section 3.2 develops the theoretical framework for explaining how such goals can influence information processing. Thereafter, section 3.3 specifies the dimensions of advertising processing that will be of interest in the study, and determines the criteria for the relevance of an advertisement to a specific media goal. This leads to the research hypotheses, which will be presented in Section 3.4.

3.1 The concept of goals and properties of media goals

3.1.1 Cognitive orientation to the study of motivation

Motivational theories can be roughly divided into two basic types: The first class of theories holds that behaviour is mechanistically controlled – either by physiological needs (Hull; ref. in Evans 1975, 64) or by reinforcement of behaviour (Skinner; ref. in Evans 1975, 82). Cognitive approaches, in contrast, maintain that people do not behave mechanistically, but they have a capacity for purposive action (Atkinson 1964; Bandura 1989).

In recent years, the cognitive orientation in the study of motivation has been dominant. The key concept in the cognitive approach is that of goals. Studies emphasising the role of goals have proliferated in the 1980s and 1990s (see compilation volumes edited by, Frese and Sabini 1985; Pervin 1989b; Gollwitzer and Bargh 1996). Some have even suggested that “the study of goals and goal-related cognition *is* the study of motivation, and that goals themselves are the instigators and directors of human action rather than being ... servants of deeper-lying needs and motives.” (Ryan et al. 1996, 7).

Cognitive approaches to the study of motivation have roots in two constructs: the concepts of *expectations* (Atkinson 1964) and *interpretation* (Schachter and Singer

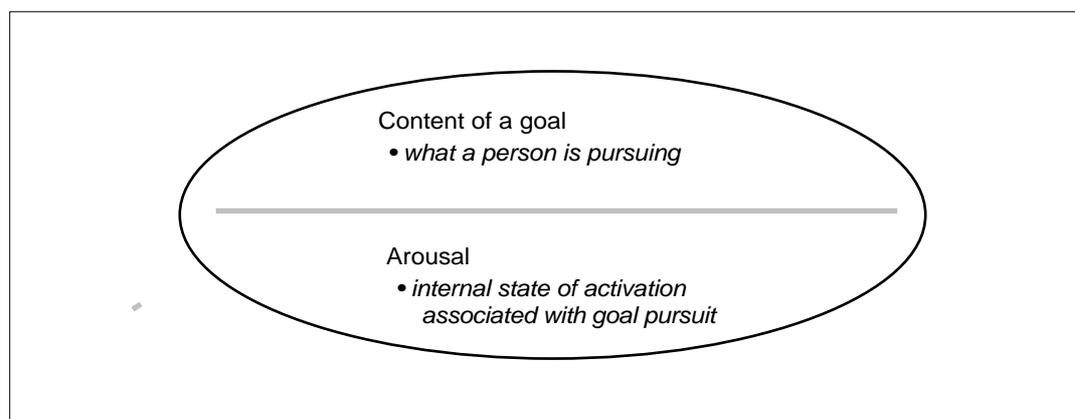
1962). Expectations are cognitions about future events, and interpretation refers to the fact that it is the person's subjective understanding of the situation, which is the actual base of motivation. Thus, an emphasis on a person's subjective cognitions means that we must examine how the person interprets the goal he or she is pursuing in order to be able to understand how motivation directs behaviour.

Goals may be seen as the individual's cognitive representation of motivation (Cantor and Langston 1989; Bandura 1989). This cognitive standpoint can be interpreted in two ways: First, goals can be seen as purely cognitive entities. Accordingly, a goal consists of a person's cognition of the *content* of the goal as well as the person's cognition of the *associated inner state*. Hence, a goal is what the person *thinks* he or she is pursuing and feeling in a particular situation. In the second interpretation, many theorists seem to hold that goals have both cognitive and affective features, and that these affective features should not be totally subordinated to a person's cognition of them (McClelland 1961; Young 1961; Pervin 1989a). It is this latter standpoint which is adopted in the present study. It means that goals are viewed as having both a cognitive content and an associated inner state, both of which can influence a person's behaviour. In particular, this point of view holds that the internal state associated with the goal pursuit – which will be conceptualised as arousal – can influence a person's behaviour not only through the person's deliberate cognitive interpretation of the state, but also more directly.

It is maintained that goals are the most direct regulators of thoughts and actions (Carver and Scheier 1981; Pieters et al. 1995). Even though the focal goal the person pursues is often a subgoal which the person pursues in order to satisfy some higher level value or end state (Bettman 1979; Reynolds and Gutman 1988; Bandura 1989), it is here maintained that goals provide the primary motivating and directing force for behaviour. The two aspects of a goal – its cognitive content and the associated internal state of arousal – can both have consequences for a person's information processing. Though it may be difficult to separate these two aspects of a goal construct in reality (for example, to obtain truly independent measures of them), they are theoretically separate and will be discussed as such in the following. Henceforth, the term goal is used to refer particularly to the content of the goal: that is, to the cognition of *what* the person is pursuing. The concept of arousal is used to refer to the *intensity* of the goal pursuit: it is the internal state of activation that the person

experiences as he or she pursues the goal. Figure 3 illustrates these two components of the goal concept.

Figure 3. Two components of the goal concept.



In the following, the goals concept will be discussed from two standpoints: first, from that of the person having the goal, and second, from that of the theoretical explanation of how goals influence information processing. From the standpoint of the person having a goal, *goal is determined as what the person thinks he or she is pursuing* - it is the person's cognition of what he or she is trying to do in a particular situation (Bandura 1989). This view on goals corresponds well to Vallacher and Wegner's (1985) action identification theory which posits that how a person identifies his or her action at any moment most directly regulates the person's behaviour at that point in time. Viewing goals from the point of view of the person having the goal helps us understand the nature of media goals. The next section (3.1.2) discusses the properties of media goals.

From the point of view of the theoretical explanation, *goals are determined as knowledge categories* (Anderson 1985). Accordingly, it is maintained that goals are organised in memory as other knowledge in cognitive structures, and that the principles of knowledge activation and accessibility are also applicable to goals (Kruglanski 1996; Huffman and Houston 1993; Grunert and Grunert 1995; Pieters et al. 1995). The knowledge category point of view makes it possible to explain how and what kind of influence goals can have on information processing (sections 3.2.1 and 3.2.2). The influence of arousal on information processing will be discussed in section 3.2.3.

3.1.2 Properties of media goals

Viewing media goals as what a person thinks he or she is pursuing in a particular situation helps us examine the properties and content of such goals. It will next be argued that media goals are likely to have the following properties: they are conscious, they are general intentions rather than specific levels of performance, they are relatively persistent, and they may be directed toward instrumental informational benefits or toward experiential satisfactions.

The assumption of the *consciousness* of a goal is a direct implication of determining a goal as what the person thinks he or she is pursuing. The assumption of conscious choice of a goal, however, is also central in gratificationist studies of media use. There it is assumed that people are aware of the gratifications they seek from the use of alternative media vehicles and content, and that they can identify these gratifications when asked to (Palmgreen et al. 1985, 14). In the present study, the assumption of consciousness is more relevant to how media goals can be empirically examined, than to the theoretical argumentation of how they influence information processing. Different types of magazine reading goals will be identified in a pilot interview phase by interviewing people about their reasons for choosing to read a particular issue of a magazine. When the hypotheses are tested in an experimental setting, the type of reading goal will be manipulated by asking research participants to adopt a specific type of goal. Hence, whether or not reading goals are conscious in all real life situations, they will be made so in the present study. Thus, it is important to emphasise that the theoretical explanation that will be provided to account for the influence of goals is not dependent on the assumption of consciousness. The explanation is based on activation and subsequent accessibility of constructs in memory. Constructs which are active in a person's memory may have been consciously thought about or they may have been triggered by environmental information without the person's awareness (Bargh and Barndollar 1996, 473). An example of the latter case is a situation in which a person sees a new issue of a familiar magazine, and the mere sight of the magazine automatically activates certain processing goals without the person consciously thinking about these goals. However, there is no reason to believe that how the goal has been activated would make any difference to how it will influence subsequent information processing.

An important distinction can be made between goals that refer to specific levels of performance and goals that are in the form of rather general intentions. This characteristic is called goal specificity by Bandura (1989). Media goals are *general intentions*. This is apparent when we consider findings produced by prior media studies: people characterise what they pursue from media exposure in terms of general aims. For example, they watch a particular television program to make themselves laugh, to learn something new, to have something to talk about later, or to stay on top of what's happening (Lee and Lee 1995). Even thinking about media goals in terms of specific levels of performance feels arbitrary. For example, would someone set him- or herself a goal of laughing at least 50 per cent of the time while watching a comedy? Or, to learn five new things about computer software when reading a copy of a computer magazine?

The fact that media goals are general intentions is important because, as such, they are likely to be relatively *persistent*. As Bandura (1989, 33, 42) argues, when people strive for goals that are specified by a certain level of performance, people regulate their behaviour by readjusting the goals in light of their attainments. However, when goals are in the form of general intentions, there is no clear basis for such continuous readjustment of goals because one is not in the same sense evaluating how one is doing. This leads to relative persistence of goals during the goal pursuit. In the case of media goals this would mean that the goal a person has, for instance, when he or she sets out to read a particular issue of a magazine does not change during that reading activity. Rather, the goal is likely to remain active and influence information processing over the exposure. Gratificationist media studies provide support for the argument: The relative persistence of media goals over a particular consumption situation has been found in studies which have examined the discrepancy between gratifications sought and gratifications obtained. In short, what people seek from a particular media consumption activity is not necessarily what they obtain. However, what they obtain affects their expectations in future consumption situations, whereas what they actually set out to seek influences their behaviour in that consumption situation (Palmgreen et al. 1985, 17, 27-28). Based on the above, it is here assumed that the reading goals people have as they begin reading an issue of a magazine most directly influence information processing during that exposure. Hence, in the empirical part of the study, it will be possible to focus on the reading goals research participants have as they start reading a particular issue of a magazine.

Goals may also be characterised in terms of whether they are means to some desired end-state or whether it is enjoyment or interest in the action itself that provides the satisfaction (Gutman 1997). A prevalent dichotomy of human motivations is the one between instrumental and hedonic in various fields of social psychology. For example, in consumer behaviour literature, it has been suggested that people engage in various consumption behaviours either because the behaviour is expected to be useful or functional for the person at some later point in time (instrumental reasons), or, because the behaviour is intrinsically gratifying (hedonic reasons) (Batra and Ahtola 1990; Holbrook and Hirschman 1982). This would mean that people have basically two types of reasons for attending to a medium content: it either provides them with information that is potentially useful at some later point in time, or, the activity itself provides them with more immediate gratification, such as, an opportunity to forget daily routines, aesthetic pleasure, or emotional stimulation. Indeed, the dichotomy has been found in numerous empirical media studies: for example, Panula (1993, 39) classifies reasons for media use found in twenty studies along similar dimensions (Panula, however, uses the terms cognitive and affective). A third dimension of social motives or reasons for media use has been suggested and emphasised by some authors (e.g., Blumler et al. 1985). However, in the present study socially oriented reasons for media use will not be treated as a separate category but they will be classified either into informational (for example, to get something to talk about later) or into experiential media goals (for example, to get support for one's values).

Hence, the present study distinguishes between two broad categories of media goals: When a person pursues an *informational* goal, the person is looking for information which he or she expects to be worth knowing or useful at some later point in time. *Experiential* media goals refer to situations in which the activity of attending to a particular medium vehicle or content in itself provides gratification for the person. This may be in terms of aesthetic pleasure, emotional or intellectual stimulation, or social experiences.³ To say that there are basically the two types of goals, does not mean that specific behaviours should or could be characterised exclusively in terms of either (Ahtola 1985; Batra and Ahtola 1990). Indeed, it is more likely that to some extent all activities are motivated by both informational as well as experiential goals.

³The term experiential is used instead of alternatives such as hedonic, emotional, or affective, because it better captures the many types of experiences an audience member may pursue in using the media. Emotions are probably involved in all media goals - be they informational or experiential - and the main element in experiential goals is not always emotional stimulation (cf., Rossiter et al. 1991).

For example, one may choose to read a particular magazine primarily in order to get useful information about a healthy diet and keeping fit (informational goal), nevertheless, one also wants to relax while reading (experiential goal). Therefore, it will be emphasised throughout the study that an informational goal refers to *predominantly* informational pursuits, and an experiential goal to *predominantly* experiential ones.

Thus far, the concept of goals and the properties of media goals have been discussed. Next, the theoretical framework for understanding how such goals can influence advertising processing will be developed.

3.2 How goals influence information processing

3.2.1 Activation and accessibility

A goal has been defined above as what the person thinks he or she is pursuing in a particular situation. When a person pursues a goal, it is active in his or her mind. The concept of *activation* is crucial in understanding and explaining how goals can influence information processing. Namely, it has been found that it is the activated part of a person's memory which is capable of influencing the person's thinking and behaviour at any particular point in time (Srull and Wyer 1980; Wyer and Srull 1981). Let us first briefly present the network model of memory on which the concepts of activation and subsequent accessibility of information are based.

The network model of memory is the most widely accepted memory model in contemporary psychology. The model assumes that declarative knowledge is represented by an associative network in memory. Declarative knowledge refers to knowledge about 'facts and things'. It is knowledge about issues – concepts, terminology, facts – and can concern anything that a person has experienced or thought about (Mitchell 1983; Anderson 1985). In this network, information is contained in nodes, which are connected to each other by associative links. In other words, cognitive categories and associations between them constitute cognitive structures. In brief, the network model of memory holds that issue-relevant cognitions (for example, concepts, attributes, evaluations) are linked to each other by associations (for example, based on similarity, causality), which have been formed as

a result of a person's prior experiences and information processing activities (Anderson 1985; Grunert and Grunert 1995).

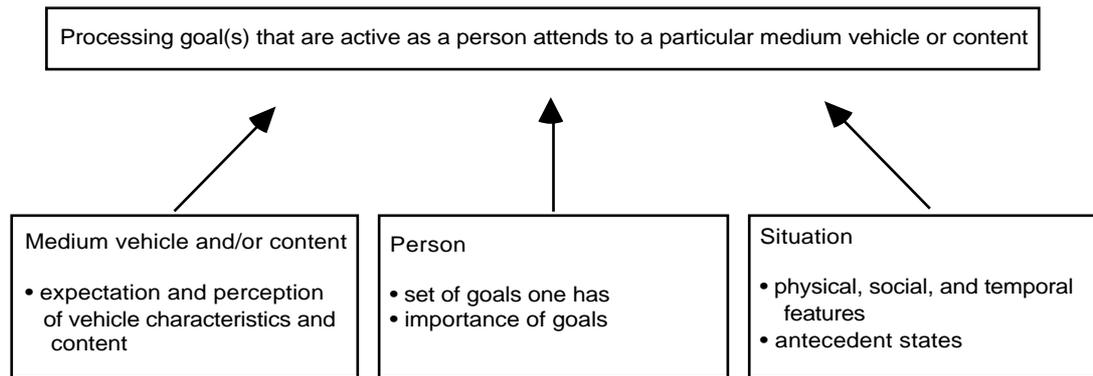
Such a knowledge structure conceptualisation of memory helps explain and examine how goals influence information processing. The most important notion is the concept of activation. When a construct is activated it becomes *accessible* in memory, which means that it can be retrieved from memory and thus be used in information processing (Wright 1980). When goals are defined as *what* people think they are pursuing, goals are basically declarative knowledge. Hence, they can be viewed as represented in memory as other cognitive categories, and the principles of knowledge activation and subsequent accessibility for information processing should also be applicable to goals (Kruglanski 1996, 602). For example, Higgins (1987; ref. in Kruglanski 1996, 602) gives the following example: Meeting a friend who has a materialistic goal orientation may activate one's goals in that domain and trigger thoughts such as "I should save more and invest more wisely"; whereas, meeting a friend with more idealistic goals may activate those types of goal pursuits in the person's mind that lead to thoughts such as "I should do more volunteer work for the homeless".

Activation is often discussed in terms of accessibility: when a construct is active it becomes accessible from memory and can influence perception and interpretation of incoming information (Nedungadi et al. 1993). Activation of a construct can be understood as some kind of energy input to the construct. When the energy or action potential of a construct increases it becomes accessible from memory (Higgins et al. 1985). What, then, determines which cognitive categories are active in a person's mind? A distinction can be made between chronically active constructs and those that become temporarily active in certain situations. Chronically accessible constructs direct a person's attention and interpretation of information on a relatively permanent basis (Higgins et al. 1982). For example, a person may have a chronically accessible goal of "being nice", and consequently, many of her thoughts and actions relate to that particular goal. Many constructs, however, become only temporarily active and accessible in response to some environmental stimulus. For example, the characteristics of a decision situation (Walker and Olson 1991) or a social situation (Kruglanski 1996, 602) are likely to determine what specific cognitive structures become accessible to the person. Further, it is usually assumed that mere exposure to a construct can make it temporarily accessible, and for example, product attributes (Yi

1990, 1993; Ratneshwar et al. 1990) and product choice goals (Huffman and Houston 1993) have been experimentally activated by exposing research participants to the relevant product attribute or goal scenario.

In the present study, the focus is on processing goals that are active in a particular media consumption situation. What goals are active in that situation is jointly determined by the person, the medium stimulus, and features of the situation (cf., Mitchell 1983, 35). The prior experiences of the person determine what cognitive categories and goals there are in the person's memory that may be activated. Further, as discussed, some goals may be very important and relatively permanently accessible to a person, and as such they are also likely to be accessible in a particular situation. Characteristics of the particular medium vehicle or content also determine what goals may be activated. Even though the same medium vehicle and content can activate different goals in different individuals - for example, people may have different expectations of magazine content based on their dissimilar prior experiences - nevertheless, stimulus characteristics limit the set of possible media goals, and empirical studies have found similarities in the gratifications people seek from particular vehicles and types of content (Katz et al. 1973). Finally, situational features refer to the possibility that the same person may pursue different goals when attending to the same medium vehicle or content in different situations. For example, temporal aspects such as how much time there is, or the social role that the person pursues in a particular situation (cf., Blumler et al. 1985) can influence activation of media goals. In sum, active media goals reflect person, stimulus, and situational factors. In this study, these sources of media goals are not important per se. The aim is to examine how active media goals influence advertising processing, and it is assumed that how they have become active is an irrelevant consideration. However, for a practitioner interested in utilising the results of the study, identification of the sources of media goals becomes a priority. Figure 4 illustrates the determinants of active media goals.

Figure 4. Determinants of media goals.



3.2.2 Principle of relevance

It has been argued above that goals that are active and thus accessible in a person's mind are capable of influencing the person's information processing. Let us now turn to specifying how activated goals influence what aspects of new information will be processed and how new information will be encoded.

The principle of relevance is the most important in explaining how activated parts of memory influence information processing. Namely, activated knowledge structures direct attention to information and make the person select for further processing information that is perceived to be relevant to the activated parts of memory (Ratneshwar et al. 1990). Hence, activated goals selectively direct attention and processing effort to information that is relevant to the goal pursuit (Bettman 1979, 2; Gardner et al. 1985; Huffman and Houston 1993). There is also empirical support for the argument. For example, Huffman and Houston (1993) empirically activated two alternative product choice goals that were pertinent to the choice of an electric guitar, and found that research participants selectively paid more attention to and acquired more information that was relevant to the activated goal than other information.

In addition to their effects on attention and processing effort, activated knowledge structures have been argued to influence how incoming information is encoded. People's interpretation of information often depends on the currently active parts of their memory (Wyer and Srull 1981; Yi 1990, 1993). For example, an advertisement that emphasises that a piece of luggage is light might indicate that the luggage is easy

to carry and handle, or alternatively, that the luggage is not durable. The interpretation that will be given to the product attribute 'lightweight' is likely to depend on what concepts are most accessible during exposure to the advertisement (Yi 1993). For instance, a person might have just read a critical article about how manufacturers deliberately develop and produce products to endure for relatively short time spans. Hence, product durability should be a highly accessible attribute to the person, and as a result, the person might come to question whether a piece of luggage that is light in weight could be durable.

It could be even argued that a person can only process new information in terms of what is accessible to him or her at a particular point in time. In the study by Huffman and Houston (1993), new information that was acquired during an experimental task was stored in memory in terms of the activated product choice goal. Hence, new information obtains a specific meaning; it is kind of filtered into knowledge when the person attaches a new piece of information into his or her existing knowledge structure. The meaning or interpretation given to information naturally reflects the concepts and types of associative links that are accessible at the time of encoding. They therefore become most directly and strongly connected to this new information.

To sum up, it is argued that an activated goal directs a person's attention and processing effort to information that is perceived to be relevant to that goal, as well as makes the person interpret information in terms of the activated goal. Now, in order to be able to apply this theoretical framework, it needs to be determined what constitutes relevant information to a particular media goal. In principle, what is relevant to a specific goal depends not only on the goal itself, but also on a person's idiosyncratic knowledge structure – on the concepts and associative links that are connected to the goal. Namely, when one concept is activated, activation will spread to other interconnected concepts in the network. It is the strength of the associative links between concepts that determines the likelihood that activation will spread from one concept to the other (Anderson 1985; Nedungadi et al. 1993). Hence, when a specific goal, such as, getting information on a healthy diet, is activated, it is likely that those portions of the person's memory become active as well that are most directly and strongly associated with that goal – for instance, these might be specific food items, other goals such as keeping fit, or even recent food hazards discussed in the media.

Therefore, if the interest was on in-depth analysis of what constitutes relevant information to a particular media goal, we should investigate people's idiosyncratic cognitive structures. However, the purpose here is to test research hypotheses about the influence of media goals on advertising processing. Some of the hypotheses will be based on the argument advanced above that activated goals direct attention and processing effort to goal-relevant information, and naturally, some a priori definition of what information is relevant to an activated goal will be needed to empirically test the hypotheses. In other words, there is a need to determine relevance by some 'objective' criterion that is a priori specified by the investigator. This will be done by dividing media goals as well as advertisements into the categories of informational and experiential (section 3.3.2).

3.2.3 Influence of arousal

Thus far the influence of an activated goal has been discussed in terms of the content of the goal: declarative knowledge of what a person is pursuing is activated in memory and hence becomes accessible for information processing. As introduced in section 3.1.1, a goal can also be characterised in terms of its intensity, which is likely to have consequences for a person's information processing as well. In fact, what is unique to goals is their motivational capacity, and this motivational capacity lies not in the content ('what') of the goal but in the inner state of an individual (Krech et al. 1962; Atkinson 1964). This inner state associated with the goal pursuit can be conceptualised as arousal (cf., Atkinson 1964, who defines motivation as goal-directed arousal). Hence, depending on the level of arousal associated with a goal, the goal can be more or less motivating. It is not quite clear how or where the intensity of a goal is represented in the above characterised network model of memory. Some theorists have even suggested that motivational forces may be stored in knowledge categories as other knowledge (see, Andersen et al. 1996). It is maintained here that arousal associated with a particular goal is best understood as the energy level of an activated goal, because the same goal may be more or less motivating for the person at different points in time. However, for the purposes of the present study it is not important to have an exact understanding of how or where arousal is represented in memory, and as will be discussed later, it is assumed that the level of arousal is best inferred by asking people experiencing it.

The concept of arousal has been determined in physiological terms and it has been approached as a psychological construct. In physiological terms arousal can be

characterised as follows: “..there is a continuum of arousal ranging from deep sleep or coma at one extreme to panic-stricken terror or great excitement at the other extreme.” (Eysenck 1982, 3). In other words, arousal is viewed as non-specific physiological activation (Berlyne 1960). When arousal has been measured by its physiological indicators – such as, skin conductance, heart rate, and pupil dilation – the problem has been that various indicators only correlate approximately 0.2 to 0.3 with each other (Eysenck 1982, 4). It may well be that such measures tap a combination of factors, for example, these might be arousal, mental effort, and processing load in an information processing context (Singh and Churchill 1987). However, it is the psychological construct of arousal that is of interest in the present study. Accordingly, arousal is viewed as *the inner state of activation that a person experiences as a result of the investment of mental resources in a task.*

In order to understand how arousal may influence information processing, it is important to identify what it is that generates arousal. For example, arousal has been induced in studies by drugs, noise, physical exercise, incentives, feedback, ego threat, and sleep deprivation (Eysenck 1982; Sanbonmatsu and Kardes 1988). Most importantly, it seems that diverse methods of producing arousal result in qualitatively different kinds of inner states, which have been shown to affect behaviour in different ways (Eysenck 1982, 48, 174). Based on an extensive review of studies in the field, Eysenck and his co-workers (Eysenck 1982; Eysenck et al. 1995) make a distinction between two major types of arousal: arousal that is a result of active investment of mental resources in a task, and arousal that is produced by non-task factors such as background noise, drugs, physical exercise, or anxiety producing ego threats. In the present study, the psychological construct of interest is of the former type. Arousal is seen as a result of the active investment of processing resources into a task, and the task is that of attending to a specific medium vehicle or content.

It is widely held that arousal mainly influences attentional processes. Arousal has been suggested to influence attentional selectivity (Easterbrook 1959; Eysenck 1982), attentional capacity (Easterbrook 1959; Kahneman 1973), speed of cognitive processing (Eysenck 1982), and susceptibility to attentional distraction (Näätänen 1973). In particular, there is robust evidence that increased arousal selectively directs attention to task relevant stimuli. This ‘selective processing hypothesis’ was first advanced by Easterbrook (1959), who argued that heightened arousal increases attentional selectivity by focusing and narrowing attention to task relevant stimuli at

the expense of other stimuli. Based on a review of more than 50 studies in the field, Eysenck (1982, 51) concludes that increased arousal leads to focusing of attention to task relevant stimuli, but this does not necessarily reduce attention paid to non-task relevant stimuli. Namely, when arousal has been produced by an incentive which increases motivation to invest processing resources to the focal task (and not by an external agent such as noise or drugs), performance on the focal task has been shown to be improved with no effect (impairment) on performance of a secondary task. In the present study, the implication is that the increased arousal associated with a media goal pursuit is likely to selectively direct more attention to goal-relevant information, without necessarily affecting the amount of attention paid to non-goal-relevant information. This would be possible if increased arousal also increased total attentional capacity or the speed of cognitive processing.

It has also been argued that there exists a curvilinear (inverted-U) relationship between arousal and performance (the argument was first advanced by Yerkes and Dodson in 1908): performance is best at a moderate level of arousal, and at both very low and very high levels of arousal performance suffers. There is ample empirical support for this generalisation (Easterbrook 1959; Berlyne 1960; Eysenck 1982; Tavassoli 1995). It is probable that several mechanisms or processes together account for the finding. The beneficial effects of arousal when it increases from its resting level to a moderate level have been attributed to increased attentional selectivity, enhanced speed of cognitive processing, and an increase in total attentional capacity. The detrimental effects of arousal when it increases beyond moderate levels to very high ones have been suggested to be due to reduced ability to engage in parallel processing, increased distractibility to both external and internal cues, focus on the arousal state itself instead of the focal task, as well as a reduction of total attentional capacity (see for references in, Eysenck 1982, 177; Tavassoli et al. 1995, 62). In the present study, the interest is in the arousal that a person experiences as a result of the activity of attending to a particular medium vehicle or content. It can be assumed that very high levels of arousal are not probable or usual, but that the continuum is between lower and higher ends of moderate levels of arousal.

Based on the discussion above, it is argued that increased arousal associated with a media goal pursuit leads a person to allocate a greater proportion of his or her available processing resources to goal-relevant information. Moreover, increased arousal is argued to lead to higher level of cognitive resource activation. Hence, as

arousal increases, the amount of attention to goal-relevant information is likely to increase, whereas the amount of attention to non-goal-relevant information should remain unaffected.

3.3 How goals influence advertising processing

The focus above has been on how the activation of goals and the associated state of arousal can influence information processing. It has been argued that activated goals selectively direct attention and processing effort to information that is perceived as relevant to the goal, as well as make the person interpret information in terms of the activated goal. As for arousal, it has been argued that increased arousal also selectively increases attention to goal-relevant information. Hence, arousal strengthens the selectivity of information processing induced by an activated goal. The research hypotheses – which will be introduced in section 3.4 – are based on these arguments. Before presenting the hypotheses, we still need to specify the dimensions of advertising processing that are of interest (section 3.3.1), and to establish what constitutes relevant advertising information to an informational and to an experiential media goal (section 3.3.2).

3.3.1 Dimensions of advertising processing

The main focus in advertising research has been on theories about how people develop product or brand attitudes in response to advertising (Thorson 1990). Four types of attitude formation models have been especially influential: These are, hierarchy of effects models (Lavidge and Steiner 1961), multiattribute models (Fishbein and Ajzen 1975), cognitive response models (Greenwald 1968; Wright 1980), and integrative models which focus on how people process advertising under different conditions (Krugman 1965; Chaiken 1980; Mitchell 1981; Petty and Cacioppo 1986; MacInnis and Jaworski 1989). The interest here lies in understanding whether and how media goals can influence how people process advertising information, and not on outcomes of this processing, such as attitudes and purchase intention. Hence, the focus is on advertising processing in terms of the amount and content of information processing.

The amount and content of advertising processing will be examined in terms of the thoughts research participants generate in response to advertisements. In other words, advertising processing will be inferred from the cognitive responses people generate in

response to advertisements. The basic argument of the cognitive response approach is that people store in memory their reactions to a message, not the message per se (Greenwald 1968). In other words, the emphasis is on inferences people generate in response to a persuasive message instead of the learning or evaluation of particular features of the message. It is these self-generated thoughts (=cognitive responses) that are assumed to influence the resulting attitude or intent (Wright 1973; Petty et al. 1991). It is noteworthy that many of the integrative models of advertising processing developed in the late 1980s – which continue to provide the framework for much of advertising research – incorporate cognitive responses. The nature of cognitive responses provides the link between the processing operations that take place in a person's mind and the resulting attitudes (Petty and Cacioppo 1986; MacInnis and Jaworski 1989). Hence, even though product, brand or ad attitudes are not of interest in the present study, empirical findings, which will be expressed in terms of the changes in the number and type of cognitive responses will make it possible for an interested practitioner to consider whether such changes would be favourable from the point of view of his or her communication objectives. For example, more extensive processing of an advertising message may have either a favourable or an unfavourable effect on brand attitude depending on the type of advertisement (argument quality) and the type of cognitive responses (Petty et al. 1991).

The amount of advertising processing refers to the amount of attention and processing effort that a person devotes to an advertisement. The content of advertising processing refers to the specific type of thoughts a person generates in response to an advertisement. In the following, what is meant by the amount of attention and processing effort and the specific types of thoughts is further specified.

Amount of attention and processing effort refers to extensiveness of processing. The concept of attention often refers to the selectivity aspect of attention: to the focus of attention, to that which receives attention. However, attention is also used as synonymous with mental effort and concentration, with the 'intensive' aspect of attention (Berlyne 1960; Kahneman 1973; Eysenck and Keane 1995). The expression above, 'amount of attention and processing effort' is used to emphasise that the interest here is not only in that which receives attention but also in how much attention the stimulus receives. Attention is understood as the distribution of mental activity that has a specific focus, and it is assumed that a person can pay to a stimulus such as an advertisement more or less attention.

The content of advertising processing has usually been examined in terms of the thoughts research participants verbalise in response to advertisements (e.g., Sujan 1985; Chattopadhyay and Alba 1989; Aylesworth and MacKenzie 1998). These cognitive responses provide a rich source of data for examining the question of interest: whether an activated media goal influences the interpretation of, that is, meaning given to, advertising information. As media goals are divided into informational and experiential categories, the content of information processing is also examined in terms of informational and experiential meaning of thoughts. The specific operationalisations provided by the cognitive response method to the amount of attention and to the content of advertising processing will be introduced in chapter 4 (section 4.2.3.1).

One aspect of advertising processing still needs to be specified. When a person pays attention to advertising information, his or her focus of attention can be on any piece of information in an advertisement. In other words, advertising information refers not only to brand or message relevant information but it includes executional aspects such as the person portrayed in an advertisement or the colours used. Often, only brand relevant processing has been focused upon (e.g., MacInnis and Jaworski 1989), or a distinction has made between brand or message relevant, and non-brand or peripheral processing (Mitchell 1981; Petty and Cacioppo 1986). There is no need to aim to make such a distinction here.⁴ The interest is in the informational and experiential content of thoughts. This distinction does not correspond to brand relevant and peripheral advertising cues. For example, thoughts related to brand usage (brand relevant thoughts) may as well contain an informational meaning (for example, usage of the brand enhances the person's health) as an experiential one (for example, usage of the brand stimulates a soft, pleasant feeling to one's skin). Overall, all information in an advertisement is as interesting from the point of view of the present research question: the objective is to examine whether and how an activated media goal influences the amount of advertising processing and the interpretation given to (any) information in advertisements.

⁴ In fact, it is impossible to determine unambiguously what elements are brand relevant and which are peripheral cues in an advertisement, because different people may give a different meaning to any piece of information (Petty et al. 1983).

3.3.2 Relevance of advertising information to media goals

It has been argued that activated media goals direct attention and processing effort to goal-relevant information in advertisements, and that increased arousal enhances this effect. In order to assess the relevance of advertising information to an activated media goal, both media goals and advertisements are divided into predominantly informational and experiential ones. As to media goals, the dichotomy was briefly characterised in section 3.1.2, and it will be specified in chapter 4, section 4.2.1, which reports pilot interview data describing the content of magazine reading goals. To recapitulate, *an informational media goal refers to a situation in which a person is primarily looking for information that he or she expects to be worth knowing or useful at some later point in time. An experiential media goal refers to a situation in which the activity of attending to a particular medium vehicle or content itself provides the audience member with experiential satisfaction in terms of aesthetic, emotional, intellectual, and/or social stimulation.*

A similar kind of dichotomy is prevalent in advertising research, where advertisements are often characterised according to a distinction between informational (or cognitive, thinking, rational) and transformational appeals (or affective, feeling, emotional) (Aaker and Norris 1982; Puto and Wells 1984; Vaughn 1986; Rossiter et al. 1991). The reason for developing such message appeal typologies lies in the idea that different types of products require different types of advertising strategies. In particular, an informational message appeal is believed to be more effective when the brand choice within a product class is logical and rational, and a transformational appeal when the brand choice is based on affect (Stafford and Day 1995, 57). However, it is interesting to note that advertising practitioners do not necessarily follow this recommendation: Dubé and her co-authors (1996) found no support for an expected match between the advertising appeal used (cognitive or affective) in food advertising and consumers' attitude bases for food products (cognitive or affective).

The main appeal of an advertisement can be defined as the way the advertisement aims to persuade consumers to bring about a desired response. The main appeal refers to the overall theme of the advertisement rather than to details of its message or to executional elements (Percy and Rossiter 1992). Advertisements will be divided here into predominantly informational and experiential ones based on their main appeal.

Informational advertisements have been elsewhere defined as ones which provide consumers with factual data (such as information on price, quality, performance, availability) that helps them assess the product offering and hence make a more rational choice (Stern and Resnik 1991; Puto and Wells 1984). In addition, informational advertisements often utilise a how-to-solve-a-problem format (Aaker and Norris 1982; Rossiter et al. 1991). *An informational advertisement is here defined as one which aims to persuade by providing factual information which is relevant to product choice, and whose execution is typically problem-posed.*

An experiential advertisement is comparable to terms such as transformational, emotional or feeling advertisements as used in prior literature (Puto and Wells 1984; Vaughn 1986). The term experiential is used instead of emotional or feeling to emphasise that experiential satisfactions include a variety of dimensions along with emotional stimulation (such as aesthetic, sensory, and social experiences). The term transformational is not used, because when it was originally suggested by Puto and Wells (1984), the authors emphasised that in order to be called transformational, an advertisement needs to actually transform a consumer's experience with the brand. Here, however, it is assumed that a person can perceive an advertisement as experiential even though the person would never be in a position of using the brand him- or herself. An experiential advertisement is defined as one which aims to persuade by providing or promising a transformation in the person's mental, sensory or social state. In other words, *an experiential advertisement aims to induce a desirable emotional, aesthetic, sensory, or social experience in the consumer* (Rossiter et al. 1991). *The execution typically seeks to make the person identify with the situation, feelings, or people presented in the advertisement.*

Hence, the relevance of advertising information to a media goal is determined at the level of an advertisement. Based on their main appeal, advertisements are divided up as predominantly informational or experiential ones.⁵ It is assumed that an informational advertisement is relevant for audience members who pursue an informational media goal, and that an experiential advertisement is relevant to those

⁵ Informational and experiential appeals are viewed as two distinct dimensions. In other words, when an advertisement possesses more informational elements, it does not necessarily mean it has fewer experiential elements (Puto and Hoyer 1990, 70). In reality, many advertisements are not clearly informational or experiential, but represent a more balanced combination of these two dimensions. In the empirical part of the study, however, in order to test the research hypotheses, advertisements need to be clearly distinct in terms of their informational and experiential content.

who have an experiential media goal. Its main appeal, then, characteristic of an advertisement, or is it dependent upon audience perception of it? In other words, does an advertisement become, say informational, when it has been designed with the intention of providing factual data, or does it need to be perceived as informational by a consumer to be labelled as such? It is logical to think that it is the consumer's perception that counts (Puto and Wells 1984). In the present setting, if those who pursue an informational media goal do not perceive an advertisement as informational in content, it is not relevant to their media goal in that very respect. However, the nature of the main appeal neither resides wholly in the person responding to the advertisement nor within the advertisement. It is a fact that some advertisements are consistently perceived in a similar way by a group of consumers even though there remains some variation in the responses (Aaker and Norris 1982). Consequently, in the empirical part of the study, test advertisements will be used that are consistently categorised similarly - as either predominantly informational or experiential in their main appeal - by a group of respondents. Operational definitions for informational and experiential advertisements will be developed in chapter 4 (section 4.2.2).

3.4 Research hypotheses

The first two hypotheses are based on the argument that **activated media goals direct attention and processing effort to goal-relevant advertisements**. The activated goal makes the person select goal-relevant advertisements for further processing (Bettman 1979; Gardner et al. 1985; Huffman and Houston 1993). The explanatory process is based on the selectivity of attention which is governed by the knowledge structures that are active at a particular moment in a person's memory (Wyer and Srull 1981; Kruglanski 1996). The hypotheses posit that when the advertisement is goal-relevant, it will receive more attention and than when this is not the case.

Goal relevancy of an advertisement is determined by a distinction between *informational* and *experiential* media goals and corresponding advertisements. When a person's media goal is informational, the person pursues information that is expected to be useful at some later point in time. A relevant advertisement is one which aims to persuade by providing factual information for product choice (an informational advertisement). Experiential media goal refers to emotional, aesthetic, intellectual, and social stimulation. A relevant advertisement is one which aims to persuade by

providing and promising such experiential satisfactions (an experiential advertisement).

The dependent variable refers to the amount of attention. Two hypotheses are formulated in which the comparison is between different media goals and the dependent variable is the amount of attention to informational advertisements (H1), and the amount of attention to experiential advertisements (H2). This makes it possible to examine the influence of the type of media goal on the same set of advertisements. Hence, it is not problematic if the advertisements are different from one another, for example, in terms of the amount of attention they tend to evoke in consumers – it is the influence of the type of the media goal which should provide the only explanation for potential variation in the dependent measurement. Accordingly,

Hypothesis 1: When a person's media goal is informational, the person pays more attention to informational advertisements than a person whose media goal is experiential.

Hypothesis 2: When a person's media goal is experiential, the person pays more attention to experiential advertisements than a person whose media goal is informational.

The next two hypotheses predict that an activated media goal influences the content of advertising processing. It is argued that **the meaning given to advertising information is likely to reflect the media goal that is currently active in a person's mind** (Bettman 1979; Wyer and Srull 1981; Huffman and Houston 1993; Yi 1990, 1993; Kruglanski 1996). It has been argued that the effect is due to a person's propensity to interpret meaning of advertising information in terms of the currently active goal. Moreover, an activated media goal may influence the content of advertising processing because the person pays more attention to those elements in an advertisement that are relevant to the goal. However, this study does not aim to empirically distinguish between these two processes. It is hypothesised that the content of advertising processing reflects the activated media goal, but how much of this effect is due to a person's propensity to interpret meaning of incoming information in terms of the activated goal, and how much of it is due to the fact that a person selectively directs attention to goal-relevant information in an advertisement, will not be examined. Hence,

Hypothesis 3: When a person's media goal is informational, the person's thoughts in response to advertisements can be characterised as more informational in content than a person's whose media goal is experiential.

Hypothesis 4: When a person's media goal is experiential, the person's thoughts in response to advertisements can be characterised as more experiential in content than a person's whose media goal is informational.

It is noteworthy that in hypotheses 3 and 4, no distinction is made between informational and experiential advertisements, but it is predicted that the activated media goal is reflected in the content of processing of all types of advertisements. As has been said, two processes may contribute to the effect: the person is likely to interpret any information in terms of the activated goal, and, the person is likely to pay attention to goal-relevant features in advertisements. In case the advertisement does not contain goal-relevant elements – for example, an experiential advertisement that has no informational features – the latter process can hardly take place. Therefore, the hypothesised effect might be stronger or more consistent in the case of goal-relevant advertisements. Even though separate hypotheses are not formulated here for different types of advertisements, in addition to testing the effects across all advertisements, it will be possible to empirically examine the effects independently for informational and experiential advertisements.

Hypotheses 5 to 8 make predictions about the influence of arousal on the amount of attention and content of advertising processing. Arousal has been determined as the internal state of activation a person experiences as a result of investing processing resources in a media consumption task. Hence, arousal is associated with the media goal pursuit, and its influence is best understood by considering simultaneously the level of arousal, the activated media goal, and the type of advertisement. The hypotheses are based on the argument that higher levels of arousal increase attentional selectivity by focusing attention on task relevant information (Easterbrook 1959; Berlyne 1960; Eysenck 1982; Tavassoli et al. 1995; Pham 1996). Therefore, it is hypothesised that **higher levels of arousal lead a person to allocate more attention to goal-relevant advertisements and to goal-relevant information in advertisements.**

Hypotheses 5 and 6 predict that when the level of arousal increases, the amount of attention to goal-relevant advertisements increases, whereas the amount of attention to non-goal-relevant advertisements remains unaffected⁶. Likewise in H1 and H2, the hypotheses are formulated so that the comparison is between the two media goal conditions and the type of advertisement is taken into account in the dependent variable. Accordingly,

Hypothesis 5: There is interaction between arousal and media goal on the amount of attention to informational advertisements. When arousal increases, the amount of attention to informational advertisements increases when a person's media goal is informational, but it remains unaffected when the media goal is experiential.

Hypotheses 6: There is interaction between arousal and media goal on the amount of attention to experiential advertisements. When arousal increases, the amount of attention to experiential advertisements increases when a person's media goal is experiential, but it remains unaffected when the media goal is informational.

Hypotheses 7 and 8 predict that increased attentional selectivity due to higher levels of arousal also becomes manifest in the content of advertising processing. Consequently, when the level of arousal increases, the share of goal-relevant thoughts in response to advertisements should increase:

Hypotheses 7: There is interaction between arousal and media goal on the share of thoughts that can be characterised as informational in content. When arousal increases, the share of informational meaning of thoughts increases when a person's media goal is informational, but it remains unaffected/decreases⁷ when a person's media goal is experiential.

⁶ The effects of increased arousal on the processing of non-task-relevant information are less clear. It has been suggested that the extent of processing may decrease (if less attentional capacity is available to this task), or it may remain unaffected (if arousal leads to an increase in total attentional capacity, or to an increase in the speed of cognitive processing). Here, arousal is associated with a motivation to invest processing resources into attending to a particular medium content. Arousal which is produced by an incentive (instead of anxiety or electric shocks, for example), has been found to have a positive effect on task performance and no effect or impairment on the secondary task (for a review, see Eysenck 1982, 51-53).

⁷ The content of advertising processing will be examined in terms of relative measures – share of informational, share of experiential, and share of other thoughts to the total number of thoughts. As the share of one category of thoughts increases, the share of at least one of the two remaining categories necessarily decreases.

Hypotheses 8: There is interaction between arousal and media goal on the share of thoughts that can be characterised as experiential in content. When arousal increases, the share of experiential meaning of thoughts increases when a person's media goal is experiential, but it remains unaffected/decreases when a person's media goal is informational.

4 Methodology

The purpose of this chapter is to present the methodological choices and to describe the empirical data needed to test the research hypotheses. Section 4.1 first justifies the use of the experimental approach and discusses aspects of its validity, as well as the reliability of measurement. Thereafter, the main features of the experimental design and statistical analysis are presented.

Section 4.2 focuses on the operational definitions of the key variables and on the selection of stimulus material. The content of informational and experiential magazine reading goals is specified based on pilot interview data. This step provides information for the manipulation of reading goals. Then, selection of the test magazine and advertisements is characterised. Thereafter, operational definitions for the amount of attention and the content of advertising processing are developed. This involves discussing data collection by the cognitive response method and analysis of the data by content analysis. (However, specific choices as to the manipulation procedure for reading goals, the selection of test advertisements, the development of a cognitive response elicitation method and a content analytic procedure will be made based on the pretest phase of the study, which is reported in chapter 5.) Section 4.2 concludes by presenting the research hypotheses in operational terms.

Section 4.3 provides an overview of the empirical study. It summarises the objectives and content of the two pretests (chapter 5) and the main experiment (chapter 6).

4.1 Experimental method and valid inference making

4.1.1 Experimental method

Methodological choices need to reflect the primary approach to theory and data that has been adopted in a study. Here the approach follows the traditional path of deduction: hypotheses that have been derived from previous research in the area will predict what kinds of empirical observations should occur (Elmes et al. 1999, 35; Clark-Carter 1997, 11). In other words, the hypotheses have been derived through syllogistic reasoning from prior theoretical argumentation – which already has

empirical confirmation – and the hypotheses adopt this knowledge to examine connections between previously unconnected phenomena (Hull 1988; Schaller et al. 1995). Hypotheses have been developed and will be subjected to an empirical test in order to explain why certain empirical observations occur. Hence, the purpose of the study is explanatory.

Given the emphasis on explanation, and in particular, on identifying causal relationships between factors, adequate control over the research situation is a priority. The controlled experiment is the best way – some would argue the only one – to make causal inferences from correlations (Campbell and Stanley 1966; Cook and Campbell 1979; Sternthal et al. 1994; Kirk 1995). Let us briefly characterise the experimental way of doing research and justify its pre-eminence when causal explanation is aimed at.

The experimental way of doing research is best illustrated by looking at the manner in which data is obtained: the data is based on what people say or do *in response to stimuli they are presented with*. The idea of generating knowledge, hence, relies not on what people say in itself - as is typical when surveys or interviews are the main methods of data collection - but on observing how their responses differ to carefully planned and administered stimuli. A major strength of the experimental method is its ability to reveal aspects of behaviour that could not be as well captured by simply asking people questions. In particular, the experimental method is the best option when research interest is explanatory and there is reason to believe that people's own insight into their behaviour is limited. This is exactly the case in the present study: the aim is to explain aspects of information processing behaviour, and such mental processes are typically beyond people's own exact insight (Sternthal et al. 1994).

This way of collecting data by observing what people say or do when confronted with experimental stimuli, leads to the opportunity to *observe causal relationships*: when people are presented with X they are observed to say or do Y. The term *controlled experiment* refers to a setting which permits maximum control of all other factors that, left uncontrolled, would make it difficult to demonstrate that it is the independent variable of the study rather than any other variable that actually produced the observed effects (Campbell and Stanley 1966; Cook and Campbell 1979; Westley 1981). Controls are pursued in many ways, such as controlling the treatments making up experimental conditions (manipulation), controlling the

environment in which data is collected, controlling the testing instruments, matching of subjects in order to hold important characteristics constant across treatments, use of control groups, not to mention random assignment of subjects to treatments (Clark-Carter 1997; Keppel 1991; Westley 1981). Whichever forms it takes, adequate control is vital for inferring causality. According to Cook and Campbell (1975) (ref. in Sternthal et al. 1994, 1997), the following conditions must hold in order to make causal inferences based on experimental data: 1) the independent variable thought to cause the effect precedes the outcome observed; 2) there is covariance between the independent variable and the dependent variable, and; 3) plausible alternative independent variables do not exist. When these conditions are met, the experiment has internal validity.

It is this 'marriage' of adequate control and internal validity - because it practically always comes at the expense of some external validity - that has raised criticism of the use of controlled or 'laboratory' experiments in consumer research (see, for example, Lynch 1982, 1983). The next section discusses four aspects of validity in experimental research, that is, *internal*, *statistical conclusion*, *construct*, and *external* validity (Campbell and Stanley 1966; Cook and Campbell 1979), as well as the reliability of measurement.

4.1.2 Validity and reliability

Internal validity means that the investigator can conclude that observed variation in the dependent variable is due to the changes in the independent variable (Cook and Campbell 1979; Campbell and Stanley 1966). In the present study, the cornerstones of internal validity are *manipulation* of the main independent variable and *random assignment* of research participants into the experimental treatments. Media goals will be manipulated and subjects randomly assigned into two goal conditions (the other predictor variable of the study, arousal, will be measured and discussed in section 4.1.3)

As has been discussed in chapter 3 (section 3.2.1), a media goal that is active in a particular situation is a joint product of the person, the medium stimulus, and situational determinants. As it is impossible to control that which may be chronically active in a person's mind, the investigator can only aim to control an activated media goal by manipulating the medium stimulus (or a person's expectations and perception of the stimulus) and situational factors. However, even such partial control of an

independent variable is adequate for hypotheses testing when the manipulation succeeds in making the experimental conditions distinct from each other in the intended way.

Threats to internal validity include maturation, testing, selection, instrumentation, and history (Campbell and Stanley 1966; Cook and Campbell 1979; Kirk 1995; Clark-Carter 1997). Threats posed by maturation (changes that occur in research participants as a function of the passage of time per se), testing (effects of earlier measurements on responses to later measurements), and selection (selection of respondents for experimental groups), are taken into account by randomisation. Instrumentation is controlled as fixed instruments will be used to collect data. However, for practical reasons not all research participants will come to the experimental session at the same time. Hence, intra-session history effects are not totally controlled (Campbell and Stanley 1966, 14). However, some highly likely sources of intra-session history effects will be ruled out as the experimenter will be the same in all groups, and both experimental conditions will be run at several times of the day, and on several days of the week.

Statistical conclusion validity "refers to whether or not statistical inference of covariation between variables is justified" (Calder et al. 1982a, 240). A major threat to statistical conclusion validity springs from random error (Keppel 1991), and a great part of random error is due to individual differences. A convenience sample of students will be used as research participants in order to limit the variability of factors that might affect the dependent variables *but are not of theoretical interest* in this study⁸ (Calder et al. 1982b; Kirk 1995). A second possible way of decreasing random error is statistical: some of the factors that are expected to correlate with the dependent measurements, but again, are not of theoretical interest, can be measured and included in the analysis (Wildt and Ahtola 1978; Keppel 1991). Potential covariates will be identified in the pretest phase of the study (chapter 5).

⁸ It is interesting to note that some methodologists who are critical of the use of statistical methods, such as Sayer (1992, 202), argue that one of the reasons for why statistical analysis is inadequate for providing explanations is its preoccupation with big, representative samples. This means that the basic concepts whose interrelationships the statistical analyses are supposed to uncover become "chaotic conceptions" when operationalised – thereby, making the conclusions based on correlations very difficult to interpret in terms of the original theoretical concepts. Such criticism, though indirectly, also suggests that the use of more similar (instead of representative) research units is the preferred option in an explanatory study.

Construct validity refers to the extent to which operational variables reflect the theoretical constructs they are intended to measure (Elmes et al. 1999, 55; Sternthal et al. 1994; Calder et al. 1982a). A major consideration in the present study is the extent to which the manipulation of media goals reflects that which is intended. The phenomenon to be examined is whether and how processing goals that are active as a person attends to a particular medium vehicle or content influence information processing from embedded advertisements. As has been discussed, the study empirically examines the processing of magazine advertisements. Hence, it is important that research participants do *not* perceive their task in terms of processing of advertisements, but in terms of reading a particular magazine issue. It is thought that the best way to assure the construct validity of reading goals is to actually embed real advertisements within a real magazine, and to characterise the experimental task to the participants in terms of reading of the magazine. The other independent variable of the study, arousal, will be measured by a measurement scale suggested by Mehrabian and Russel (1974, 216-217) (justified in chapter 5, section 5.2.4). Advertising processing will be operationalised by the number and type of cognitive responses to advertisements (section 4.2.3).

External validity refers to the extent to which one can generalise from the research participants and the research setting to other people and to other settings (Cook and Campbell 1979; Clark-Carter 1997, 38; Elmes et al. 1999, 57). It is clear that a convenience sample of female university students who will be recruited for the experiment is not representative of consumers in general. However, participant representativeness is not important in its own right; the key issue is whether it can be assumed that *the psychological processes of interest* are equivalent between the research participants and the other groups to which we wish to generalise (Elmes et al. 1999, 123-124). Such an assumption seems reasonable. Theoretical argumentation has been based on knowledge about how activated and accessible constructs and arousal influence information processing. Such processes are indeed likely to be widely shared among people.

Variable representativeness refers to the extent to which the experimental manipulations allow the results of the study to be generalised to other circumstances (Cook and Campbell 1979; Elmes et al. 1999, 124). The study suggests that the same process of media goal activation and the consequent direction of attention to goal-relevant media content should occur regardless of the medium vehicle. However, as

the chosen manipulation is tied to magazine reading, replications will be needed to assess the validity of generalisations to other media (television, the Internet, etc.).

Finally, ecological validity refers to the extent to which the findings that have been obtained in a research setting hold in the real world (Calder et al. 1982a; Elmes et al. 1999, 125). In the present study, the rather realistic experimental task and stimulus material have been primarily chosen for the sake of construct validity. However, it is possible that they also contribute to ecological validity in case they increase the likelihood that research participants behave as they would in a natural setting.

The several aspects of validity all refer to whether the study is meaningful in the sense that we measure what we intend to measure. Reliability, in turn, is the consistency of measurement (Elmes et al. 1999, 201; Bryman 1988, 55). An important way to enhance reliability is by taking repeated measurements from the same research participants. Here, participants will report their cognitive responses to four advertisements instead of only one. Further, whenever measurement scales are needed, summary scales with multiple indicators will be employed – as several indicators should offset mistakes that respondents might make in answering to single items. The use of multiple items also makes it possible to assess internal consistency of the summary scales by Cronbach's alpha (Churchill 1979; Traub 1994, 86). Finally, with respect to the quantification of the cognitive response data with a content analytic procedure, special attention will be devoted to the consistency of the procedure. Two people will independently categorise the data, and the reliability (reproducibility) of the analysis will be assessed by comparing the results obtained by the two analysts (Weber 1985; Kassarjian 1977).

4.1.3 Main features of design and statistical analysis

This section describes the experimental design and statistical analyses that will be used to test the research hypotheses. Statistical analyses will be discussed in more detail along with the empirical analysis (chapter 6).

The study examines two independent variables: the type of media goal and the level of arousal. Strictly speaking, the media goal is the only truly independent variable of the study as it will be manipulated. As to the manipulation of the media goal, the experimental design is a completely randomized, between-subjects design. Accordingly, each subject is randomly assigned to, and serves *either* in the

informational *or* in the experiential goal condition. The basic reason for choosing a between-subjects design is that there is no chance that one treatment would carry over to and thus contaminate another treatment (Elmes et al. 1999).

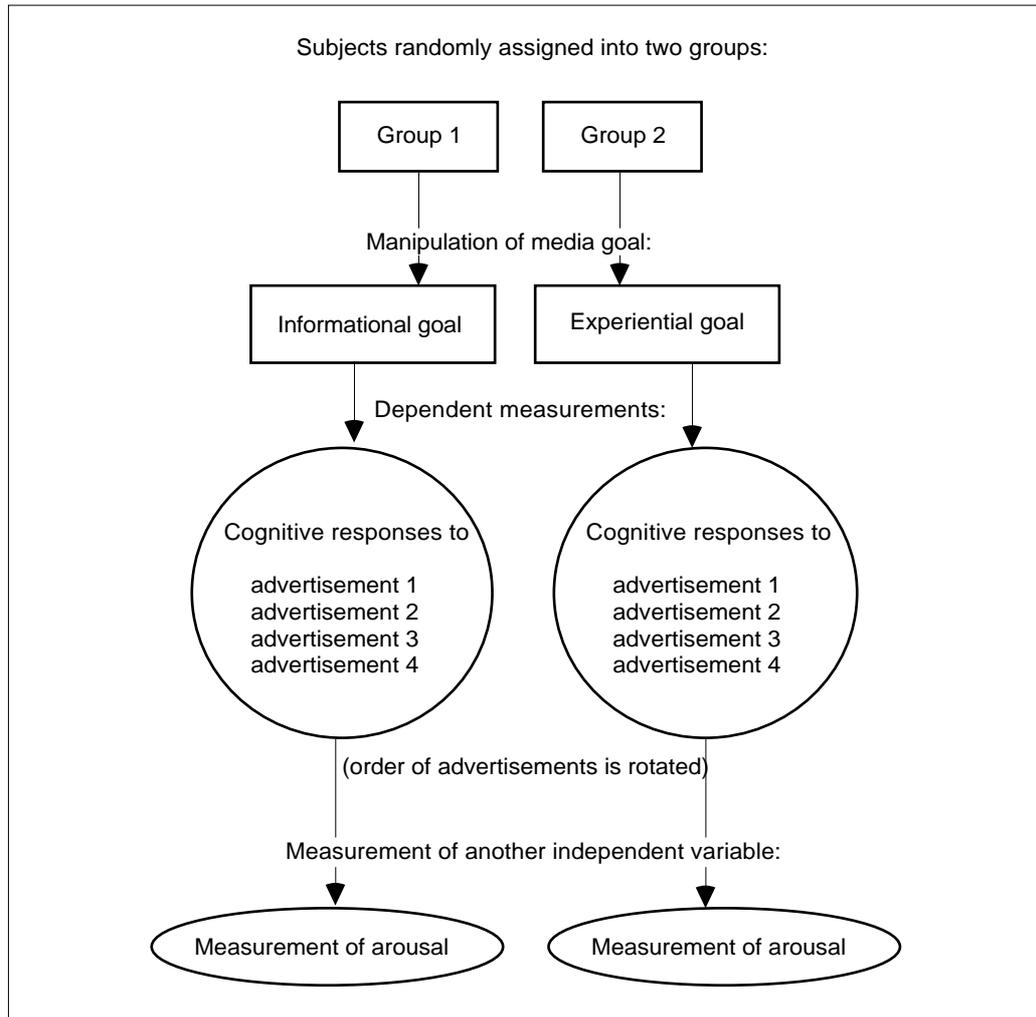
The main weakness of a between-subjects design is that large individual differences can be expected, making the design a rather inefficient one (Keppel 1991; Clark-Carter 1997). One way to take individual differences into account would have been by a pretest-posttest design. However, this was not feasible, as any before measurements would have sensitised research participants to the fact that advertisements, not the magazine in its entirety, were the focus of the study (Westley 1981). In order to remove variation due to individual differences, efforts will be made to identify potential covariates that can be measured after taking the dependent measurements and included in the analysis (chapter 5, section 5.1.4.5).

Arousal will be measured. In this respect, the design is quasi-experimental. Measurement of arousal was preferred because its manipulation might have interfered with the manipulation of reading goals. Campbell and Stanley (1966) encourage the use of quasi-experimental designs in situations where more control is not feasible. As they emphasise, if the variables have been manipulated or measured, "the causal interpretation of ... correlation depends upon both the presence of a compatible plausible causal hypothesis and the absence of plausible rival hypotheses to explain the correlation upon other grounds." (p. 65). The design of the main experiment⁹ is illustrated by Figure 5.

Each participant will respond to four test advertisements. The advertisements are the same for all participants, two of them with a predominantly informational and two with a predominantly experiential appeal. When hypotheses make predictions separately about processing of informational and experiential advertisements (H1, H2, H5, H6), the analyses naturally consider only the two relevant advertisements. When hypotheses predict effects across all types of advertisements (H3, H4, H7, H8), all four advertisements are included in the analysis.

⁹ The term main experiment is used to refer to the hypotheses testing experiment. An experimental design is also employed in the pretest phase of the study.

Figure 5. Experimental design of the main experiment.



The main statistical analysis needed to test the research hypotheses is analysis of variance (ANOVA). Basically, ANOVA compares between-groups and within-groups variances to find out whether the between-groups means are significantly different to be able to conclude that there is a real difference between the groups (Iversen and Norpoth 1976). Multivariate analysis of variance (MANOVA) is used to evaluate mean differences on several dependent variables simultaneously (Bray and Maxwell 1993). In particular, multiple measurements (cognitive responses to four advertisements) will be viewed as statistically separate variables and tested using MANOVA. When hypotheses make predictions about the joint influence of a qualitative (type of media goal) and a quantitative (level of arousal) independent variable, an appropriate analysis is provided by analysis of covariance (ANCOVA),

in which the effects of both independent variables are assessed simultaneously (regression perspective) (Wildt and Ahtola 1993, 253). The principal test statistic is the F-test.

4.1.4 Research participants

Female university students will be recruited to the main experiment as well as to the pretests. As has been said, the aim is to use a fairly homogeneous sample of research participants in order to limit variation in the dependent measures due to differences such as age, intelligence, and interest in the product groups advertised, and thereby decrease random error (Kirk 1995, 22). With a more homogeneous sample of research participants the experimental treatments are also more likely to have the same impact on all participants (Sternthal et al. 1994). It has been argued that such a choice is justified because the aim is to generalise findings about psychological processes. It is reasonable to assume that processes that are of interest in the present study operate in an equivalent way between a student sample and adults in general.

The decision to recruit only females was made on practical grounds. Namely, the investigator could not find a test magazine which would have been as relevant to both sexes, and, *at the same time*, likely to be perceived as credible in both the informational as well as in the experiential reading goal treatment (selection of the test magazine will be described in section 4.2.2). Because a women's special interest magazine was chosen, only females were invited to participate in the study. As with the case of the student sample, the use of female participants should not affect generalisability of the results, as long as sex does not *interact* with the theoretical constructs of the study (Cook and Campbell 1979, 73; Lynch 1982; Calder et al. 1982a). In the absence of research indicating that the processes of goal activation and arousal, and the subsequent selectivity of information processing would differ between the sexes, the sex of the research participants is not an important consideration.

4.2 Operational definitions and nature of data

The discussion now turns to developing operational definitions for the variables and selecting stimulus material for the main experiment. Henceforth, instead of talking about media goals in general, the focus will be on magazine reading goals as it is their influence that is empirically examined. As has been said, many procedural and

measurement issues that are considered in the present section (4.2) will be specified based on pretest data, and reported in the next chapter (5).

4.2.1 Pilot interviews: content of informational and experiential reading goals

Ten pilot interviews were conducted to empirically examine the content of magazine reading goals. In particular, the content of informational and experiential reading goals needed to be specified before the manipulation procedure could be developed. The pilot interviews reported in this section provide data for how informational and experiential reading goals can be identified and manipulated; however, the specific manipulation procedure will be developed and assessed in chapter 5 (sections 5.2.2 and 5.2.3).

In addition, the aim was to find a magazine that could be used in the experimental study. The test magazine should be relevant to students (because students will be recruited to the experimental study), and should evoke both informational and experiential reading goals (to be credible in both reading goal conditions). However, it was very difficult to find a magazine which would be as relevant to both sexes, and at the same time, likely to evoke both informational and experiential reading goals. Therefore, and as the sex seemed not to be an important consideration in the study, it was decided that only female students would be included both in this interview phase as well as later in the experimental study. The four magazines that were focused upon in the interviews are Finnish special interest magazines in the field of health and beauty and they are targeted at women.

The interviews were one-to-one and semi-structured, each taking approximately an hour. The idea was to keep the discussion focused on reading goals while the respondents were encouraged to talk as freely as possible. The interviewing techniques used shared many features which are characteristic of a laddering interview (Reynolds and Gutman 1988). In short, the respondent was first asked to think about similarities and differences among the four magazines; then, she was asked to choose the magazine she would prefer if she could get a free subscription; thereafter, the respondent was asked several “why” questions in order to make her think about her reading goals. All ten interviews were taped and transcribed.

To analyse the data, a content analytic procedure was applied to the interview transcripts (Kassarjian 1977; Weber 1985). The steps taken were as follows: First, it

was decided that the unit of text to be categorised would be a theme, that is, a piece of text that conveys a coherent meaning. Second, the transcripts were read through twice and those themes were marked that seemed relevant from the point of view of respondents' reading goals. Hence, only content that was thought to be relevant to understanding a person's reading goals was selected for categorisation. A total of 203 themes were identified in ten interviews. Third, the selected themes were read through several times to establish a content category scheme that would reflect the content of respondents' reading goals. The superordinate categories of informational and experiential were assumed a priori categories, and empirical studies on media use (in particular, Katz et al. 1973; Lee and Lee 1995) helped in developing the subcategories. As a result, the category scheme showed in Table 1 was developed.

Fourth, two people (I and another Ph.D. student) coded the themes into the ten content categories independently. Inter-coder reliability was 76 per cent: in three cases out of four (155 themes out of 203) we agreed on the most appropriate category. However, when only the distinction between the two categories of informational and experiential reading goals was considered (which is the theoretically relevant distinction in hypotheses), the inter-coder reliability rate reached 92 per cent.

Table 1. Content categories for characterising informational and experiential reading goals.

<p>INFORMATIONAL:</p> <p>1 . P E R S O N A L L E A R N I N G Indicates concern with information that is useful for daily life, self-education and personal development. The person describes information as personally relevant.</p> <p>2 . R E A L I T Y O R I E N T A T I O N Indicates concern with information that is important for the sake of knowing what goes on in the world, keeping the respondent up-to-date on current events and topics. The person describes information as new and worth knowing.</p> <p>3 . S O C I A L L E A R N I N G References to the use of information as an element in interpersonal communication, often, as a basis for future conversations. In addition, references to the use of information for role models and guidance for proper conduct.</p>
<p>EXPERIENTIAL:</p> <p>4 . A E S T H E T I C Pertains to the sensory, mainly visual experiences provided by reading.</p> <p>5 . E M O T I O N A L S T I M U L A T I O N References to the inducement and experiences of various emotions and excitement.</p> <p>6 . E S C A P I S M References to the avoidance of reality by absorption of the mind in imagery.</p> <p>7 . P A S T I M E References including the idea that reading serves to make time pass agreeably, or is done along with other activities.</p> <p>8 . R E L A X A T I O N References to relief from work, to resting and relieving tension.</p> <p>9 . I N T E L L E C T U A L S T I M U L A T I O N Indicates mental activity, 'food for thought' in the sense that being engaged in mental activity is a goal rather than means to some end.</p> <p>10 . S O C I A L I D E N T I F I C A T I O N References to identification with people and their situations, and social approval by gaining support for own values and ideas.</p>

Of the total of 203 themes elicited by the respondents, 55 per cent were categorised into the informational categories and 45 per cent into experiential ones. The most

typical categories - which were elicited by all respondents - were the informational category of 'personal learning' and the experiential category of 'relaxation'. Not surprisingly, each respondent reported both informational and experiential reading goals. Those who seemed to have a predominantly informational reading goal focused on acquiring new and useful information, but nevertheless, they emphasised that the reading experience must be relaxing as well. Those whose reading orientation was more experiential described their goals in more diverse terms: they were likely to elicit themes in several content categories, and in particular, the reading experience was characterised in terms of emotional and intellectual stimulation, opportunities to identify with others and gain support for own values and ideas, pastime, relaxation, as well as escapist and aesthetic experiences. In the main experiment, there will be a need to manipulate research participants' reading goals so that half of the participants pursue a predominantly informational and the rest a predominantly experiential reading goal. Hence, the manipulation should stress those aspects that seem to best distinguish between predominantly informational and experiential reading goals. The implication for the manipulation is that informational reading goal manipulation should focus on the task of acquiring new and useful information, whereas the experiential manipulation should evoke a diverse set of experiential interests in the person's mind. The content category scheme presented in Table 1 will also be used to assess whether the adopted manipulation procedure actually worked in the experiment (manipulation check).

4.2.2 Stimulus material

Magazine

The pilot interview data discussed above also made it possible to choose the test magazine. As many as seven of the ten interviewees chose a magazine, which will be called here 'My Health', as the magazine they would like to read and get a free subscription to. The magazine seemed suitable for the experimental study as it meets the following criteria: First, the magazine is relevant to young females. Second, both informational and experiential reading goal manipulations are likely to appear credible when subjects read the magazine. Third, the magazine carries an ample number of advertisements, both those that can be characterised as predominantly informational as well as those predominantly experiential in appeal, which makes it possible to examine processing of these two types of advertisements in their natural context.

Advertisements

It has been argued that realistic stimulus material should enhance construct validity in the study. That is, it is important that research participants are exposed to the test advertisements while they are engaged in reading the magazine, and that the test advertisements do not stand out in the magazine in any unusual way. To be perceived as realistic by research participants, advertisements need not be 'real' in the sense that they have actually appeared in the magazine. Most experimental investigators would probably prefer to use advertisements that were created particularly for the purposes of the study, to make sure that they only differ in terms of the informational/experiential distinction that is of interest (Brock and Shavitt 1983).

However, the test advertisements were not professionally designed for the study. This is because it was considered impossible to design “two otherwise similar advertisements”, the only difference being in the type of main appeal. The informational/experiential distinction is understood as the overall theme and execution of an advertisement. The main appeal is manifested in the entirety of information contained in an advertisement – both in its verbal and its visual content. As it is the overall execution that makes an advertisement predominantly informational or experiential, it was considered not feasible trying to design “two otherwise similar advertisements”.

With real advertisements, there is a need to minimise the risk that some factor other than the type of appeal systematically influences the dependent measures. First, instead of employing only one advertisement of a type, research participants' responses to two informational and two experiential advertisements will be collected. Second, an effort will be made to match the informational and experiential test advertisements on some important dimensions, such as promoted product group and amount of verbal and visual content.

The advertisements were chosen from a set of one-page advertisements that appeared in the test magazine in 1997-98. Specifically, all one-page advertisements in 11 issues of the magazine were analysed to find suitable test advertisements (229 advertisements in total). The vast majority of advertisements fell into the following product groups: cosmetics (being by far the biggest category), medicine and vitamins, food products, other health products and services, and clothing. A preliminary

analysis suggested that the categories of 'cosmetics', 'food products', and 'medicine and vitamins' would be most fitting (167 advertisements fell into these categories), because it was possible to find several predominantly informational as well as predominantly experiential advertisements in these categories. Further, the product groups should be relevant to the research participants.

The procedure for selecting the test advertisements was two-staged: First, the investigator went through the set of 167 advertisements to find a much smaller set of advertisements that could be classified as either predominantly informational or experiential in their appeal (this step is discussed below). Second, 11 advertisements were pretested with a group of students to find whether they were actually perceived as intended, and to choose the four test advertisements for the experiment (this step will be discussed in chapter 5, section 5.1.4.3).

In order to identify predominantly informational and experimental advertisements, operational definitions of informational and experiential appeals were needed. An informational advertisement has been defined as one which aims to persuade by providing factual information which is relevant to product choice, and whose execution typically includes the idea of how to solve a problem. An experiential advertisement, in turn, has been defined as one which aims to persuade by providing and promising experiential - that is, emotional, sensorial, aesthetic, and social - satisfaction, and whose execution typically aims to make the consumer identify with the situation, feelings, or people presented in the advertisement.

In developing operational counterparts to the above definitions of informational and experiential advertisements, the classification scheme employed by Dubé, Chattopadhyay, and Letarte (1996) proved to be valuable. They content analysed and classified 276 television advertisements for food products based on the appeal used to persuade consumers. The main distinction was made between cognitive and affective appeals. However, what Dubé and her co-authors labelled as cognitive and affective is very much based on the same kind of distinction (and background literature) that has been made in the present study between informational and experiential appeals. This is manifest in the specific coding categories they used: The four cognitive categories were: 1. product features; 2. functional benefits (preparation, price, storage, etc.); 3. physical consequences (nutritional information, health claim, etc.); and, 4. symbolical

aspect (modernism, quality, etc.). The three affective categories were: 1. sensory experiences; 2. emotional experiences; and, 3. social experiences.

On the whole, these content categories seemed useful for identifying predominantly informational and experiential advertisements. Two modifications, however, were made: First, along with sensorial, emotional, and social experiences, a fourth experiential category of 'aesthetic experience' was included. Providing and promising aesthetic pleasure should be an important appeal at least in cosmetics and food advertisements. Such a category was probably omitted by Dubé and her co-authors because they focused mainly on the verbal content of advertisements. Second, the category of 'symbolical aspect' was not employed as such. Rather, symbolic aspects such as cultural beliefs, prestige, and way-of-life, were considered as essentially experiential in nature and included in the category of social experiences. Table 2 summarises the content of the seven coding categories that were used to distinguish between informational and experiential advertising appeals. Subcategories that are indicated by *italics* in the table were added in order to extend the scheme beyond food advertising which was the focus in the study by Dubé et al. (1996).

Table 2. Coding categories used to distinguish between informational and experiential advertisements.

Coding categories	Subcategories	Examples
INFORMATIONAL		
1. Physiological consequences	health benefits; physical shape; physical appearance; nutritional information; missing ingredients; <i>physical performance</i> ; <i>conditioning/nursing</i>	healthy; no artificial sweeteners used; makes hair shine; revitalises skin
2. Product features	ingredients; origin; package; preparation; consumption; brand; <i>product varieties</i> ; <i>how the product has been produced, transported, tested</i> ; <i>mechanism of influence</i> ; <i>technical product quality</i>	package size; gets its sweetness naturally from raisins; includes light-reflecting pigments; dermatological tests reported
3. Functional benefits	facility; rapidity and flexibility of preparation and consumption; price and promotion; <i>effectiveness</i> ; <i>endurance</i>	easy to use; for further information web-site address given; can be used by several skin types
EXPERIENTIAL		
4. Aesthetic pleasure	<i>beauty in people or surroundings</i> ; <i>aesthetic use of form and colour</i>	beautiful female figure; natural beauty in an oasis-like environment
5. Sensorial experiences	taste; odour; appearance; temperature; sound; combination of senses; freshness; <i>softness</i>	tastes good; can hear waves of the sea; can smell antiseptic odour of a hospital
6. Emotional experiences	relaxation; amusement; adventure; love/seduction; hedonism; <i>activeness</i> ; <i>good mood</i> ; <i>escapism</i>	makes me happy; makes me forget daily worries for a while
7. Social experiences	with friends and family; interrelation with other people; celebrity; cultural tradition; <i>social identification, approval, comparison</i> ; <i>symbolic aspects</i>	it is easy/difficult to identify with the model; luxury; being a trendy person

Source: Adapted from Dubé, Chattopadhyay, and Letarte (1996).

Based on this category scheme, the investigator classified each of the 167 advertisements into those (one or several) of the seven coding categories that seemed to constitute an important element in the advertisement's creative strategy. Then, advertisements which had been classified exclusively in one or several of the informational categories (23 advertisements), and advertisements which had been classified exclusively in the experiential categories (20), qualified as potential test advertisements. From these 43 advertisements, 11 were chosen so that matching would become possible, in terms of the product group and amount of visual and verbal material, between the informational and experiential test advertisements.¹⁰ The final step of selecting the four test advertisements was based on information provided by pretest 1 (chapter 5, section 5.1.4.3).

4.2.3 Dependent measurements: cognitive responses to advertisements

4.2.3.1 Collecting data: cognitive response method

The two aspects of advertising processing that are of interest in this study are the amount of attention and the content of advertising processing. In persuasion studies, the amount of attention has most often been operationalised by one or several of the following measures: by the duration of time people allocate to a stimulus, by the number of cognitive responses, or by a recall measure (Gardner et al. 1985; Celsi and Olson 1988; Olney et al. 1991; Goodstein 1993). The first two – duration of processing and number of cognitive responses – are probably the most direct measures of the amount of attention and the extensiveness of processing (a greater number of cognitive responses and a longer viewing time do not necessarily lead to better recall, see for example, Goodstein 1993, 95). Here, the amount of attention a person devotes to an advertisement will be operationalised by the number of cognitive responses the person generates in response to the advertisement. Examining the number of cognitive responses has become an established way of inferring processing constructs such as attention and extent of processing (Celsi and Olson 1988; Batra and Stayman 1990). Naturally, it would be desirable to have at least two independent measurements for each dependent variable (Churchill 1979). The possibility of

¹⁰ One of these 11 advertisements was an informational advertisement for a brand of painkillers. It was replaced by its more recent version – which appeared at the time in another women's special interest magazine.

utilising a duration-of-time measure along with the number of cognitive responses depends on the specific procedure for collecting the cognitive response data. However, the pretest data – which will be presented in chapter 5, section 5.1.4.4 – suggested that research participants should write down their cognitive responses instead of using a verbal reporting mode. When a written mode of reporting is employed, a duration-of-time measure might not be a valid way of inferring the amount of attention to a stimulus, and hence, it was not included in the study.

Usually, the content of advertising processing is inferred from the type of cognitive responses research participants verbalise in response to advertisements (e.g., Roberts and Maccoby 1973; Wright 1973; Sujan 1985; Chattopadhyay and Alba 1989; Aylesworth and MacKenzie 1998). Here also, freely reported cognitive responses provide a rich source of data for examining the informational and experiential meaning of thoughts. The meaning of research participants' thoughts will be examined by classifying cognitive responses into those that contain an informational, experiential, or other meaning by a content analytic procedure. This will make it possible to compare the share of informational and experiential cognitive responses by those who pursue an informational and those with an experiential reading goal, and thereby, to study whether an activated reading goal is reflected in the content of advertising processing as hypothesised.

Let us now briefly discuss the validity of the cognitive response method. When data is collected by the cognitive response method, it is obtained by asking people either to write down or to report orally the thoughts that occur(ed) while they are (were) processing a stimulus. Naturally, the basic premise is that verbalised thoughts mirror the actual thoughts that occur to people. There is some controversy as to the validity of any self-report measures on mental activities (Ericsson and Simon 1984). In persuasion research, however, there is an extensive body of research demonstrating the validity of the cognitive response method: Firstly, thought verbalisations have behaved in a manner which is consistent with theorising about how antecedent factors affect information processing. Secondly, thought verbalisations have been shown to mediate treatment effects on outcome variables such as attitudes and preferences (Wright 1980; Brock and Shavitt 1983; Gardner et al. 1985; Celsi and Olson 1988).

Nevertheless, the validity of the method is to be assessed in each research project. It needs to be established whether thoughts that are of interest in a specific study are

likely to be accessible for verbalising, and what type of thought elicitation procedure should be used in order to make research participants report those thoughts (Wright 1980; Wansink et al. 1994). In the present study, in order to establish a valid thought elicitation procedure, some variations in the procedure will be tried out in pretest 1: two types of elicitation instructions (general and specific) and two reporting modes (oral and written) will be experimented with to find a procedure which best encourages participants to communicate informational and experiential thoughts that occur to them as they view the test advertisements (chapter 5, section 5.1.2).

To classify cognitive responses into informational and experiential categories, a content analytic procedure needs to be specified. Next, basic principles of content analysis are introduced.

4.2.3.2 Analysing data: content analytic procedures

Content analysis is usually used to analyse text, such as newspaper articles, or the transcript of a speech or conversation. Here, a content analytic procedure is employed to analyse thoughts research participants communicate in response to the test advertisements. In content analysis the idea is to reduce and quantify data by classifying its elements into theoretically relevant content categories, which then makes it possible to make theoretical comparisons and inferences from the original data (Holsti 1969, 5; ref. in Kassirjian 1977, 9).

The often cited definition for content analysis was provided by Berelson in the early 1950s (1952, 55): "Content analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication." (ref. in Kassirjian 1977, 8). *Objectivity* means that the results of a content analysis depend on the procedure that is followed, not on the analyst's subjective impressions. That is, two or several analysts, following identical procedures with the same data should get the same results. *Systematic* means that all data relevant to the hypotheses is included, and that the rules that guide categorisation are applied in a consistent way throughout the analysis. *Quantitative* means simply that the quantification is done by calculating the frequencies with which each content category is used in the analysis (Kassirjian 1977; Stempel 1981; Weber 1985). Finally, the requirement of *manifest content* holds that it is the manifest, apparent content that is to be categorised instead of what the analyst might feel has been intended (Stempel 1981).

The present study aims to follow the four principles outlined above. However, the requirement of objectivity needs to be discussed. Certainly, the aim is to be objective in the sense that it is the procedure that guides coding, not the investigator's subjective impressions. However, it is evident that human interpretation is needed in order to understand whether reported cognitive responses carry informational or experiential (or some other) meaning. This meaning is not tied in any straightforward way to the use of particular words – it is simply not manifest in responses without some interpretation. As Holsti (1969; ref. in Kassirjian 1977, 14) pertinently points out, an increase in reliability (objectivity) is not desirable if it is made at the expense of the validity of the coding categories. The relationship between validity and reliability in the present study can be characterised as follows: from the point of view of valid content categories, some subjective interpretation needs to be allowed in coding. Reliability of coding will be assessed by comparing how two analysts independently categorise the data, and a minimum of an 80 per cent inter-coder agreement rate will be pursued (Kassirjian 1977; Weber 1985). Moreover, the coding scheme and rules guiding coding will be made as explicit as possible so that the reader can assess both the validity as well as the reliability of the procedure employed (Clark-Carter 1997, 27).

Two decisions need to be made in order to classify the data: First, it is necessary to determine how to break up the data into the separate entities that form cognitive responses. Second, a coding scheme needs to be established which specifies the categories used to classify cognitive responses (Wright 1980; Stempel 1981; Weber 1985, 22-23). Three types of content categories are included: thoughts are classified into informational, experiential, and other in content. However, several informational, experiential, and other subcategories will be employed to help operationalise the content of these theoretically meaningful categories. The coding categories that will be used are essentially the same as those that were employed to operationalise informational and experiential advertisements (Table 2). The procedure in its entirety – the breaking up of data into separate cognitive responses and the classification of cognitive responses into coding categories – will be detailed based on pretest data, and presented in chapter 5, section 5.1.3.1.

4.2.4 Research hypotheses

The eight research hypotheses introduced in chapter 3 (section 3.4) can now be expressed in operational terms.

The first two hypotheses posit that an activated reading goal directs attention to goal-relevant advertisements. The amount of attention paid to an advertisement is operationalised by the number of cognitive responses a person generates in response to the advertisement. Hence,

Hypothesis 1: When a person's reading goal is informational, the person generates a greater number of cognitive responses to informational advertisements than a person whose reading goal is experiential.

Hypothesis 2: When a person's reading goal is experiential, the person generates a greater number of cognitive responses to experiential advertisements than a person whose reading goal is informational.

Hypotheses 3 and 4 predict that the content of advertising processing reflects the activated reading goal. The content of advertising processing is examined in terms of the informational and experiential meaning of thoughts. Cognitive responses will be categorised into informational, experiential, and other in content, which makes it possible to compare the share of informational and the share of experiential cognitive responses by those in the two reading goal conditions. Accordingly,

Hypothesis 3: When a person's reading goal is informational, the person generates a greater share of informational cognitive responses to advertisements than a person whose reading goal is experiential.

Hypothesis 4: When a person's reading goal is experiential, the person generates a greater share of experiential cognitive responses to advertisements than a person whose reading goal is informational.

The rest of the hypotheses consider the effect of the type of reading goal and the level of arousal simultaneously. Hypotheses 5 and 6 posit that higher levels of arousal increase the attention paid to goal-relevant advertisements, whereas attention to non-

goal-relevant advertisements remains unaffected. The hypotheses are formulated so that an interaction is predicted between reading goal and arousal and the type of advertisement is taken into account in the dependent variable. Hence,

Hypothesis 5: There is interaction between arousal and reading goal on the number of cognitive responses to informational advertisements. When arousal increases, the number of cognitive responses to informational advertisements increases when a person's reading goal is informational, but remains unaffected when the reading goal is experiential.

Hypotheses 6: There is interaction between arousal and reading goal on the number of cognitive responses to experiential advertisements. When arousal increases, the number of cognitive responses to experiential advertisements increases when a person's reading goal is experiential, but remains unaffected when the reading goal is informational.

Finally, hypotheses 7 and 8 predict that higher levels of arousal influence the content of advertising processing so that a person's thoughts in response to advertisements become increasingly goal-relevant in content. Again, interaction is predicted between reading goal and arousal, and the dependent measure is the share of informational cognitive responses (H7) and the share of experiential cognitive responses to advertisements (H8):

Hypotheses 7: There is interaction between arousal and reading goal on the share of informational cognitive responses to advertisements. When arousal increases, the share of informational cognitive responses increases when a person's reading goal is informational, but remains unaffected/decreases when the reading goal is experiential.

Hypotheses 8: There is interaction between arousal and reading goal on the share of experiential cognitive responses to advertisements. When arousal increases, the share of experiential cognitive responses increases when a person's reading goal is experiential, but remains unaffected/decreases when the reading goal is informational.

4.3 Overview of empirical study

The empirical study will be conducted in three phases. *Pretest 1* and *pretest 2* will focus upon procedural and measurement issues that need to be established before research hypotheses can be tested in the *main experiment*. Pretest 1 focuses upon the dependent measurements of the study: the task is to establish a valid and reliable method for collecting and analysing cognitive response data. Moreover, the cognitive response data obtained in the pretest makes it possible to select the four test advertisements as well as to identify potential covariates. Pretest 2 specifies the manipulation (reading goals) and measurement (arousal) of the independent variables of the study, as well as provides an opportunity to try out the entire experimental procedure with relevant stimulus material. The two pretests have only instrumental value: the purpose of the empirical study is to subject research hypotheses to an empirical test, which will be accomplished in the main experiment. The next chapter (5) reports the two pretests, and chapter 6 the main experiment. Table 3 summarises the main content of the pretests and the main experiment.

Table 3. Main features of pretest 1, pretest 2, and main experiment.

PHASE / CHAPTER	AIMS	RESEARCH PARTICIPANTS	STIMULUS MATERIAL	MAIN MEASURE-MENTS	TIME OF DATA COLLECTION
Pretest 1 Chapter 5, Section 5.1	<ol style="list-style-type: none"> 1. Select 4 test advertisements. 2. Establish cognitive response elicitation procedure for data collection. 3. Specify content analytic procedure to analyse cognitive response data. 4. Identify potential covariates. 	40 female undergraduate students participate as a course requirement.	11 advertisements which have been classified as informational or experiential by the investigator.	<p>Dependent variables: cognitive responses to advertisements.</p> <p>Potential covariates.</p>	September 1998
Pretest 2 Chapter 5, Section 5.2	<ol style="list-style-type: none"> 1. Develop manipulation for reading goals. 2. Operationalise measurement of arousal. 3. Try out experimental procedure. 	26 female undergraduate students, who receive 50 FIM for their participation.	<p>Informational and experiential magazine articles (priming articles used in manipulation).</p> <p>A February issue of the test magazine in which two test advertisements are inserted.</p>	<p>Independent variables:</p> <ul style="list-style-type: none"> - Manipulation check. - Arousal (and affect) scales. 	March 1999
Main experiment Chapter 6	Empirically test the research hypotheses.	60 female (under)graduate students, who receive 50 FIM for the participation.	<p>An informational and an experiential priming article.</p> <p>An April issue of the test magazine in which four test advertisements are inserted.</p>	<p>Dependent variables: cognitive responses to advertisements.</p> <p>Independent variables:</p> <ul style="list-style-type: none"> - Manipulation check. - Arousal (and affect) scales. 	May 1999

5 Pretests

5.1 Pretest 1 – Cognitive responses to advertisements

5.1.1 Objectives

The aim of pretest 1 is fourfold:

First, there is a need to examine whether the 11 advertisements that have been classified as either predominantly informational or experiential by the investigator are actually perceived as such by a group of students. The first criterion for a predominantly informational advertisement is that, on average, respondents report more cognitive responses that can be categorised as informational in content than experientially oriented thoughts in response to the advertisement. In a similar way, with a predominantly experiential advertisement, respondents report more experiential cognitive responses than informational ones in response to the advertisement. The second criterion is consistency in perceptions: those advertisements will be chosen that are most consistently perceived as either predominantly informational or experiential by a group of respondents. Based on these main criteria, four test advertisements will be selected for the main experiment.

Second, the procedure of data collection needs to be specified. This means establishing and choosing a cognitive response elicitation procedure which is sensitive to research participants' thoughts. As Wansink, Ray, and Batra (1994) emphasise, each researcher utilising a cognitive response measure should experiment with alternative thought elicitation procedures to enhance the quality of measurement in a particular research project. Towards this end, two types of reporting modes (oral and written) and two types of elicitation instructions (general and specific) will be assessed.

Third, the content analytic procedure to analyse the cognitive response data is to be specified. A content analytic procedure is needed by which it is possible to transform research participants' freely reported thoughts into single cognitive responses, and to

distinguish between cognitive responses which are informational and experiential in content. With this pretest data, a coding category scheme and rules guiding the coding will be specified.

The fourth and final objective of the first pretest is to identify potential covariates. If major covariates exist, and it is feasible to measure them, their inclusion in statistical analysis provides a way to a decrease experimental error in the main experiment (Wildt and Ahtola 1978; Keppel 1991; Kirk 1995). Here, potential covariates are factors – other than the independent variables of the study – that may influence research participants' cognitive responses to test advertisements. Based on prior studies, potential covariates include: ad familiarity (has the person seen the ad before); brand usage (is the person a user of the brand advertised)(e.g, Alba and Hutchinson 1987); attitude towards advertising in general (e.g., MacKenzie and Lutz 1989); product group involvement (e.g., Celsi and Olson 1988); and, need for cognition (e.g., Cacioppo et al. 1983).

The section (5.1) is structured as follows: First, procedural variations in collecting cognitive response data are discussed, and an empirical design is presented to assess the influence of the type of elicitation instruction and reporting mode on cognitive responses (5.1.2). Thereafter, based on the obtained cognitive response data, a content analytic procedure is specified (5.1.3). The Results section (5.1.4) reports reliability in coding the cognitive responses, selection of the four test advertisements, selection of the type of elicitation instruction and reporting mode for data collection, as well as the analysis of potential covariates. The section concludes with guidelines for the main experiment (5.1.5).

5.1.2 Developing the thought elicitation procedure

When cognitive responses are of interest, the challenge is to get research participants to communicate those thoughts that they actually generate in response to an advertisement (Wright 1980, 156). As people do not naturally verbalise the thoughts that occur to them as they view an advertisement, the investigator needs to provide research participants with some instructions. Any instructions pose a threat to valid data collection. One problem is that the mere verbalising requirement may make research participants pay more attention to the stimulus than would have otherwise been the case. As such, increased attention is not a threat to hypotheses testing here: in the main experiment, it is the difference in the number of cognitive responses to

test advertisements between the two reading goal conditions that counts, not the absolute figures.

A related threat is that research participants come up with ‘new’ thoughts, that is, the instructions make them generate thoughts that otherwise would not have occurred to them. This would lead to invalid cognitive response data. In the present study, the validity of measurement by thought verbalisations is presumed based on accumulated evidence in prior research (Wright 1980, 171; Wansink et al. 1994). And again, the threat of participants coming up with new thoughts should not affect hypotheses testing because of the random assignment of participants into the two reading goal conditions.

Rather than coming up with too many thoughts, research participants often report only a few thoughts. In particular, asking people write down all the thoughts they have or had during exposure, typically yields few responses (Chattopadhyay and Alba 1989). It has been suggested that people find such a general elicitation request ambiguous, and they do not know what is expected of them. As a result, they only report few thoughts, and further, they may develop their own expectations about which types of thoughts are of interest to the investigator, and only report those (Wright 1980). In the worst case, the investigator ends up with data that is irrelevant from the point of view of his or her research focus. As a rule of thumb, thought elicitation instructions should encourage research participants to communicate many types of thoughts. In particular, instructions should make sure that respondents do not edit away thoughts that are relevant from the point of view of the research question (Ericsson and Simon 1984; Wansink et al. 1994).

In order to specify a valid cognitive response elicitation procedure for the present study, the following options will be considered: 1. Use of pre-exposure elicitation exercises versus post-exposure instructions; 2. Use of concurrent versus retrospective verbalisations; 3. Use of general instructions versus instructions that are more specific about the target issue; 4. Use of either written or oral mode of reporting. It is the two latter points (3 and 4) that will be assessed empirically with a group of students. Let us, however, first briefly discuss the first two points (1 and 2).

Pre-exposure elicitation exercises versus post-exposure instructions, and, concurrent versus retrospective reporting. The decision to use post-exposure instructions was

'dictated' by the experimental setting. Namely, it is vital that research participants be free to think what they actually think as they are exposed to the test advertisements in the course of reading the magazine in the main experiment. Therefore, any pre-exposure exercises were considered inappropriate as they would sensitise research participants to the fact that it is the advertisements in particular - not the magazine in its entirety - that are of interest in the study. Accordingly, research participants will be asked to report their thoughts *immediately after exposure to each of the test advertisements*. As participants will report their thoughts after exposure to the advertisements, data collection is retrospective. The risk in retrospective data collection is that reporting is incomplete due to forgetfulness (Wright 1980). However, forgetfulness should not be a major concern as cognitive responses will be reported immediately after exposure to each of the test advertisements, and the processing task is quite limited (Roberts and Maccoby 1973).

General versus specific elicitation instructions. The use of rather general instructions or instructions that are more specific about the type of thoughts that are of interest, will be experimented with. As has been said, the criterion is to find instructions that increase the number of informational and experiential cognitive responses. As there exists a great variety of thoughts that can be classified into the two broad categories of informational and experiential, research participants will be encouraged to verbalise many types of thoughts.

Two alternative elicitation instructions were created (presented in Appendix 1). Both instructions suggest that thoughts that are of interest may be product/brand related; concern any aspect of the ad execution; reflect respondents' own experiences, feelings, memories or associations evoked by any element in the advertisement. The difference between the general and the specific instruction is that the latter explicitly mentions several categories of informational and experiential thoughts. As the purpose is merely to select the instruction that produces a greater number of informational and experiential cognitive responses, a simple non-directional hypotheses is used:

H a): The type of elicitation instruction (general or specific) will influence the number of informational and experiential cognitive responses that research participants communicate.

Oral versus written mode of reporting. In persuasion research, thoughts have typically been collected in written form. The obvious advantage of the write-down-your-thoughts technique is its easiness: thoughts can be collected in a group setting and only pencil and paper are needed (Brock and Shavitt 1983). The sparse experience with the oral method makes it difficult to make conclusions about its appropriateness. Cacioppo and Petty (1981), for example, found vast differences in research participants' willingness and ability to report their thoughts consistently when the oral method was employed. They therefore concluded that oral reporting should perhaps not be used when hypotheses are tested, whereas it might be useful for generating hypotheses. Intuitively, however, letting people voice their thoughts appears attractive: When respondents talk, for example, to a tape recorder, it is likely that they do not edit as much of their thinking as when they are asked to write down their thoughts. As the aim here is to get respondents to verbalise many types of thoughts, the oral method might increase the likelihood of obtaining cognitive responses that are of interest in the study. Again, as the purpose is to compare the oral and written modes of reporting in order to select the one that generates a greater number of relevant thoughts, the hypothesis is:

H b): Reporting mode (oral or written) will influence the number of informational and experiential cognitive responses that research participants communicate.

Design. To tests hypotheses a) and b), a 2 x 2 between-subjects design was implemented. The two conditions were the type of elicitation instruction (general or specific) and reporting mode (oral or written).

Table 4. Number of research participants by type of elicitation instruction and reporting mode.

Type of elicitation instruction	Reporting mode	
	Oral	Written
General	10	11
Specific	9	10

Subjects. 40 female undergraduate students participated as a course requirement. The pretest was conducted during two lectures (two parallel groups attending the same course).

Procedure. The 19 students that came to the lecture on a Monday afternoon made up the oral condition. Half of them (10) were given the general elicitation instruction, while the rest (9) were given the specific instruction. The two groups were run in different rooms, in special language studios. The investigator (in one studio) and her assistant (in another studio) first briefly explained the procedure to the participants, including reading aloud the elicitation instruction in question to the participants (they also had this information printed on an instruction sheet). Then, the participants voiced their thoughts in response to the 11 advertisements into a tape recorder at their own pace: They had the advertisements in a pile in front of them (the order of advertisements was rotated), and they were asked to look at the first advertisement for a while and then report their thoughts to the tape – and go through all the advertisements in the same way. Thereafter, they filled in a questionnaire including measures of potential covariates.

The 21 students that came to the lecture on the next day made up the written conditions. The procedure was otherwise identical to the one employed with the oral groups, but now the participants were asked to write down their thoughts in response to 9 advertisements (two advertisements were left out simply because the task of writing was more laborious). Again, half of the participants (11) were given the general elicitation instruction, and the rest (10) the specific one.

5.1.3 Measures

5.1.3.1 Cognitive responses

To analyse the cognitive response data, first, the tapes were transcribed and the thoughts reported in writing were typed up. Next, the data was read through several times by the investigator to answer the two questions: 1. How to determine what constitutes a single cognitive response to be coded? 2. How should the coding category scheme – that has been introduced for identifying informational and experiential *advertisements* (section 4.2.2, p.68) – be adapted to characterise the cognitive response data?

The first question proved cumbersome: There are obviously no unambiguous criteria for determining where one thought ends and the next begins, especially when research participants talk freely. However, it was important to establish the reliability of this first step in breaking up the data into the separate entities that form the cognitive responses, because *the number of cognitive responses* is a dependent variable in the study. Because cognitive response data will also be used to infer the content of advertising processing (informational and experiential meaning of thoughts), one cognitive response was determined based on its meaning (cf., Spiggle 1994, 493). That is, one cognitive response is a *coherent thread of thought about some issue*. Sometimes, one cognitive response corresponded to one or only a few words, on other occasions, to one or several sentences. Obviously, determining one cognitive response as ‘a coherent thread of thought’ leaves room for interpretation. The reliability of the procedure was checked: the investigator and another Ph.D. student divided the data independently into separate cognitive responses (Weber 1985). Reliability will be reported in the Results section (5.1.4).

On the whole, the coding scheme that has been presented to characterise advertisements seemed to capture successfully the informational and experiential content of reported thoughts. However, based on the cognitive response data, some revisions were made. First of all, clear definitions were written for each of the seven coding categories. Second, several new subcategories were included under these seven categories. For example, references to the amount of information and informative style of the ad execution were included in the category ‘Product features’; and, the category of ‘Emotional experiences’ was extended by adding to it comments about atmosphere. Third, two ‘other’ categories were inferred from the data to account for cognitive responses that could not be classified into any one of the informational or experiential coding categories. Table 5 summarises the coding scheme that was used, and which will be used in the main experiment, to classify cognitive response data.

Table 5. Coding scheme used to categorise cognitive response data.

Nature of category	Category name, definition, and subcategories
<i>Informational</i>	<ol style="list-style-type: none"> 1. Physiological consequences: References to physiological consequences of product use. <ul style="list-style-type: none"> • Subcategories: health benefits; physical shape; physical appearance; nutritional information; missing ingredients (non-desirable ingredients); physical performance; conditioning/nursing. 2. Product features: Includes a variety of aspects connected to the product, its manufacture, purchasing and consumption. Also includes general references to product information, new information, and informative style of ad execution. <ul style="list-style-type: none"> • Subcategories: ingredients; origin/producer/marketer; package; brand; point-of-purchase information; consumption/uses; how the product has been produced, transported, tested; safety; mechanism of influence; product varieties; (technical) product quality; comparison to competing brands; amount of information, facts; matter-of fact, informative style. 3. Functional benefits: References to functional benefits of product use or functional benefits provided by the advertisement. <ul style="list-style-type: none"> • Subcategories: facility; rapidity of preparation or influence; flexibility of preparation or consumption; easiness of use; price and promotion; effectiveness; endurance.
<i>Experiential</i>	<ol style="list-style-type: none"> 4. Aesthetic pleasure: Indicates visual aesthetic experience derived from the advertisement or product. <ul style="list-style-type: none"> • Subcategories: beauty/ugliness; balance of colour or form 5. Sensorial experiences: References to sensorial experiences induced by the product or advertisement. <ul style="list-style-type: none"> • Subcategories: taste; texture; odour; aroma; temperature; sound; combination of senses; freshness; softness. 6. Emotional experiences: References to inducement and experience of various emotions. Includes also references to moods, atmosphere. <ul style="list-style-type: none"> • Subcategories: relaxation; break/relief from daily routines; anxiety/stress; escapism/dreaming; amusement; adventure; love/seduction/erotism; hedonism; activeness; good/bad mood; happiness/sadness. 7. Social experiences: References to social relationships and self in relation to others. Also includes symbolic values. <ul style="list-style-type: none"> • Subcategories: with family; with friends or peers; interrelations with other people; celebrity; cultural tradition; social identification; social comparison and reference groups; social approval; flattery; symbolic aspects.
<i>Other</i>	<ol style="list-style-type: none"> 8. Execution related aspects: Includes repetition of ad content, evaluation of ad execution, and description of own information processing behaviour. 9. Other self-related thoughts: References to own experiences about the ad or product, and own behaviour.

Each cognitive response was coded into one, and only one of the nine categories. As has been said, it is only the categories of informational, experiential, and other that are of interest in terms of testing the research hypotheses. However, the nine-category scheme made the coding task more practicable: it is easier to think in terms of more concrete content categories than in terms of highly abstract ones.

The following specifications guided coding. First, both positive as well as negative instances were coded. For example, when the person said that the advertisement did *not* convey some essential information about product features, this was coded into the category of 'Product features'. The logic is that by mentioning that something is absent, the person implies that she is looking for it (and consequently, her thinking can be characterised as being 'informational' in this example). Second, the informational and experiential categories (1 to 7) were treated as dominant. That is, only after having determined that a cognitive response did not contain informational or experiential meaning, was it coded into either one of the 'other' categories (8 or 9).

5.1.3.2 Other measures

These measures were taken to determine whether any of them should be considered as a covariate in the main experiment.

Ad familiarity was measured by the question “Have you seen this advertisement before?”, with the dichotomous “yes” or “no” alternative answers. **Brand usage** was measured dichotomously by the question “Do you, or have you, used the brand advertised? (the actual brand name was used in the question) **Attitude towards advertising in general** was assessed by a seven-point scale anchored by the phrases “In general, I take a positive view on advertising – In general, I take a negative view on advertising.”

Product group involvement was measured for the product groups that were promoted in the advertisements (that is, for cosmetics, painkillers, juice, fruits, and biscuits). It was measured by the Revised Personal Involvement Inventory suggested by Zaichkowsky (1994, 70). This is a summary scale, composed of ten bipolar adjectives, each measured on seven points. The scale is based on the definition of involvement as: “A person’s perceived relevance of the product based on inherent needs, values, and interests” (Zaichkowsky 1985, 342). The scale takes only a

minute/couple of minutes to complete, and, most importantly, there is evidence on its reliability and validity (Zaichkowsky 1994). Here, the ten adjective-pairs were translated into Finnish by the investigator. The alpha coefficients varied from the highest of 0.92 (for cosmetics) to the lowest of 0.86 (for painkillers). This level of reliability is high considering that this was the first test for the Finnish version of the scale and no revisions other than the translations by the investigator were made (Appendix 2 presents the original scale, and the Finnish translation).

Finally, **need for cognition** was measured by a 18-item Likert scale validated by Cacioppo, Kao, and Petty (1984). Again, items – which are in the form of statements – were translated into Finnish by the investigator. The alpha coefficient for the scale was 0.79. Now, there is a clear difference between the alpha of 0.90 reported by Cacioppo and his co-workers and the one obtained here. This Finnish version might need to be revised in case need for cognition would appear as a useful covariate for the study. (Appendix 3 presents the original scale, and the Finnish translation).

5.1.4 Results

5.1.4.1 Reliability of coding

Two inter-rater reliability rates were calculated: First, the reliability of breaking up the data into separate cognitive responses was assessed by the formula suggested by Green and Gilhooly (1996) for protocol analysis. Accordingly, inter-rater reliability was calculated as the percentage of the total number of segment indicators on which the two coders agreed (Total number of segment indicators agreeing : Total number of segment indicators used. Segment indicators simply refer to the dashes used to divide the text into separate cognitive responses.). The reliability rate was 85 per cent, and it was slightly higher in the written conditions (86%) than in the oral ones (83%). Second, inter-coder reliability of coding the cognitive responses into the nine content categories was established as the percentage of coding agreements to the total number of codings (Kassarjian 1977). The reliability rate was 68 per cent - that is, in two cases out of three, the two analysts agreed on the most appropriate of the nine content categories for a certain cognitive response. However, as the testing of the research hypotheses only requires a distinction between informational, experiential, and other cognitive responses, the reliability rate calculated for these three categories is more relevant: This was 80 per cent, indicating that in four cases out of five the

coders classified a particular cognitive response into the same theoretically meaningful category.

The reliability rates reported above are not very high. In persuasion studies, it is not uncommon that inter-coder reliabilities well above 90 percent are reported (e.g., Pawlowski et al. 1998; Steenkamp and Baumgartner 1992). As has been emphasised, however, the task of distinguishing between the informational and experiential content of thoughts includes some interpretation on the part of the analysts, and hence the reliability rates of 85% (dividing the data into separate cognitive responses) and 80% (classifying cognitive responses into theoretically relevant categories) are considered to be acceptable.

5.1.4.2 General descriptives

On average, respondents produced 4.2 thoughts in response to an advertisement. This figure is well in accordance with other studies: For example, in a study by Steenkamp and Baumgartner (1992), subjects produced an average of 4.1 thoughts when they were asked to “write down all the things that they had thought about while watching the ad”; in a study by Wansink and his co-authors (1994) the average number of cognitive responses reported with different elicitation procedures varied from 3.0 to 4.3; in a study by Mano (1997) the average was 4.3. Such comparisons with other studies is an additional indicator of the reliability of the procedure (Weber 1985, 17).

Table 6 shows the distribution of cognitive responses into the nine content categories. It can be seen that the elicitation instructions were successful in the sense that the theoretically interesting categories of informational and experiential thoughts make up almost two thirds of all reported cognitive responses. It is worth noting that the share of experiential cognitive responses slightly exceeds that of informational ones (32.6%>30.0%), indicating that respondents were willing and capable of verbalising experiential experiences as well as factual thoughts.

Table 6. Number and percentage of cognitive responses in coding categories (pretest).

Category name	Number of CRs	Percentage
1. Physiological consequences	165	9.9
2. Product features	273	16.4
3. Functional benefits	62	3.7
INFORMATIONAL, total	499	30.0%
4. Aesthetic pleasure	127	7.6
5. Sensorial experiences	119	7.2
6. Emotional experiences	139	8.4
7. Social experiences	158	9.5
EXPERIENTIAL, total	542	32.6%
8. Execution related aspects	429	25.8
9. Other self-related thoughts	191	11.5
OTHER, total	620	37.3%
Total	1661	100%

5.1.4.3 Selecting the four test advertisements

Table 7 summarises the information needed to select the four test advertisements. Apart from one of the advertisements (number 5), all the advertisements that had a priori been classified as informational by the investigator evoked more informational than experiential cognitive responses on average. Also, advertisements that had a priori been classified as experiential, evoked more experiential than informational cognitive responses (which can be seen by comparing the ratios in the last two columns). Standard deviations (in parentheses) are provided to assess the consistency in perceptions across respondents.

Table 7. Potential test advertisements: number and type of cognitive responses evoked in response to the advertisements.

Ad number (ads a priori defined as informational or experiential)	Product group	Number of CRs, mean (sd)	Ratio of informational CRs, mean (sd)	Ratio of experiential CRs, mean (sd)
Informational				
1.	Painkillers	4.15 (1.42)	.41 (.25)	.18 (.23)
4.	Fresh fruit	4.13 (1.52)	.38 (.25)	.12 (.16)
5.	Juice	4.55 (2.17)	.32 (.25)	.40 (.23)
9.	Cosmetics	5.47 (2.80)	.32 (.29)	.23 (.28)
10.	Cosmetics	3.70 (1.44)	.41 (.24)	.26 (.26)
11.	Cosmetics	4.63 (2.06)	.34 (.22)	.32 (.22)
Experiential				
2.	Juice	4.03 (1.61)	.21 (.20)	.57 (.25)
3.	Biscuits	3.98 (1.51)	.09 (.16)	.46 (.29)
6.	Cosmetics	4.32 (1.63)	.16 (.20)	.53 (.31)
7.	Cosmetics	3.85 (1.37)	.25 (.21)	.34 (.25)
8.	Cosmetics	4.00 (2.05)	.26 (.25)	.42 (.32)

Informational advertisements numbers 1 and 10, and experiential advertisements numbers 3 and 6, were considered to be most fitting for the present purpose: In terms of share of informational cognitive responses, advertisements 1 and 10 were perceived as significantly more informational than advertisements 3 and 6. And, in terms of share of experiential cognitive responses, advertisements 3 and 6 were perceived as significantly more experiential than advertisements 1 and 10. (Contrasts between relevant means were tested by Tukey's HSD test, and they were significant at $p=.05$. Test results are presented in Appendix 4).¹¹ Further, with these two pairs of advertisements some matching was possible: there is one informational and one experiential cosmetics advertisement, which are also rather similar in terms of the

¹¹ In order to test hypotheses 1, 2, 5, and 6, it is essential that informational and experiential test advertisements are clearly distinct in terms of the share of informational and experiential thoughts they evoke. This is to establish the needed goal-relevancy between the manipulated reading goals and the advertisements. However, in hypotheses 3, 4, 7, and 8, the effects are predicted for all types of advertisements (see section 3.4 Research hypotheses). In specific, H3 and H4 predict that the activated reading goal increases the share of goal-relevant thoughts to all advertisements. In testing H3 and H4, therefore, it is important that the test advertisements give the reader an opportunity to produce both informational as well as experiential cognitive responses. As is shown in table 7, all four test advertisements do allow the generation of both informational and experiential thoughts.

amount of visual and verbal material they contain. Then there is an informational advertisement for painkillers and an experiential advertisement for biscuits: here, the product groups are not the same, however, they should be similar in terms of being frequently purchased low-involvement products. Further, the execution of both advertisements is dominated by a picture of a young model.

5.1.4.4 Selecting the type of elicitation instruction and reporting mode

The hypotheses were tested by a two-way ANOVA with elicitation instruction (general or specific) and reporting mode (oral or written) as between-subject factors. Information on the key dependent variables – number of informational and experiential cognitive responses – was summarised across advertisements. This was because the hypotheses did not predict that the influence of elicitation instruction and reporting mode would be dependent on the type of advertisement.

As can be readily seen in Table 8 (third column), the average number of informational and experiential cognitive responses did not differ significantly across instruction types ($F=.20$; $p=.661>0.05$) or reporting modes ($F=.32$; $p=.577>0.05$). Hence, neither hypothesis a) (which states that the type of elicitation instruction influences the number of informational and experiential cognitive responses) nor hypothesis b) (which states that reporting mode influences the number of informational and experiential cognitive responses) gains support. In other words, the differences between experimental conditions in the number of relevant cognitive responses are too small (ranging from 2.29 to 2.77) and non-significant to make any strong recommendations as to the type of elicitation instruction or reporting mode that should be employed in the main experiment.

Table 8. Cell means for the number of cognitive responses by reporting mode and instruction type.

Reporting mode	Instruction type	Number of informational + experiential CRs, mean (sd)	Number of other CRs, mean (sd)
Oral	General	2.77 (1.10)	2.01 (0.53)
	Specific	2.57 (0.41)	1.48 (0.78)
	Total	2.67 (0.83)	1.76 (0.70)
Written	General	2.29 (0.58)	1.26 (0.38)
	Specific	2.73 (1.14)	1.38 (0.55)
	Total	2.50 (0.90)	1.32 (0.46)
Total	General	2.52 (0.88)	1.61 (0.59)
	Specific	2.66 (0.86)	1.43 (0.65)
	Total	2.58 (0.86)	1.53 (0.62)
ANOVA Results	Instruction type	F(df=1,36) = .20 p=.661	F(df=1,36) = 1.34 p=.255
F and p values	Reporting mode	F(df=1,36) = .32 p=.577	F(df=1,36) = 5.59 p = .024
	Instruction type * Reporting mode	F(df=1,36) = 1.32 p=.258	F(df=1,36) = 3.23 p = .081

The fourth column in Table 8 shows the same analysis for the number of cognitive responses classified into the ‘other’ category. The somewhat counter-intuitive result that the oral reporting mode did not generate more informational and experiential cognitive responses than the written one, now becomes more credible: Research participants who spoke into a tape recorder did report a greater number of other cognitive responses (1.76 on average) than those who wrote down their thoughts (1.32 on average) ($F=5.59$; $p=.024 < 0.05$). However, it seems that in terms of the cognitive responses that are of special interest in the present study (informational and experiential), there is no reason to prefer the oral to the written reporting mode.

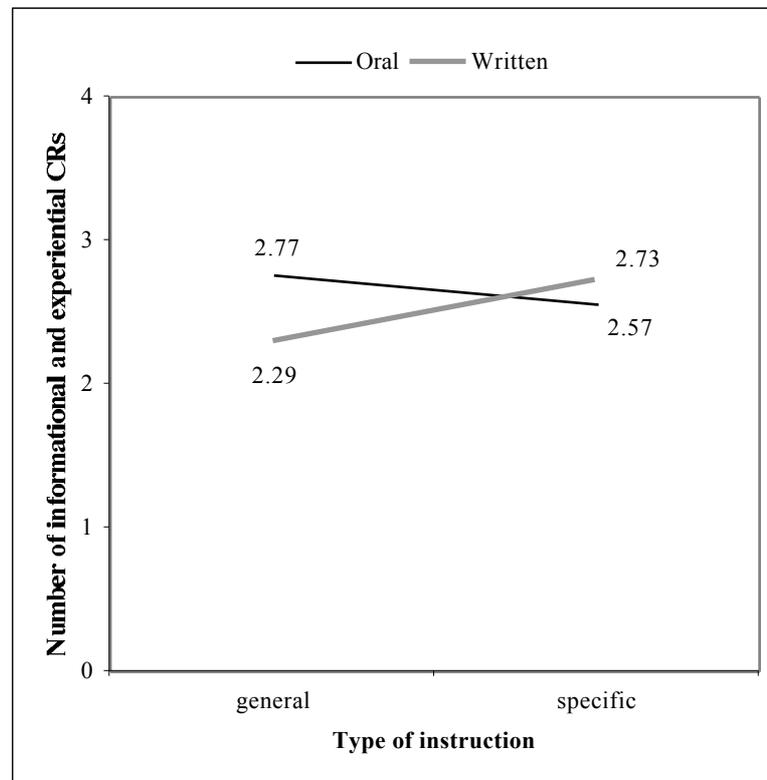
The fact that the general and the specific instruction generated very similar numbers of cognitive responses can be related to the type of thoughts examined: The categories

of informational and experiential cognitive responses are comprehensive in the sense that a vast variety of thoughts can convey either informational or experiential meaning. Hence, it may very well be that it is difficult to increase the share of such thoughts by a 'more specific' instruction as these thoughts are not related to any specific issue (cf., Wansink et al. 1994).

It is also important to examine the potential interaction between instruction type and reporting mode. Again, there is no significant interaction between the two factors when number of informational and experiential cognitive responses is used as the dependent measure ($F=1.32$; $p=.258>0.05$). However, as the objective here is exploratory – the aim is to find a combination of the type of instruction and reporting mode that is likely to increase the number of target relevant cognitive responses – it may be worthwhile analysing this (non-significant) interaction in more detail. Namely, it seems to be disordinal (Keppel 1991, 235): When the oral mode is employed, the use of a general elicitation instruction produces more relevant cognitive responses (2.77, on average) than the more specific elicitation instruction (2.57). In contrast, when the written mode is used, the specific elicitation instruction seems to generate a greater number of relevant cognitive responses (2.73) than the general one (2.29) (Figure 6).

To sum up, even though the analysis did not reveal statistically significant influences on the number of informational and experiential cognitive responses, it still gives guidance as to the most useful combination of reporting mode and instruction type for the main experiment. It seems that it is either the combination of the oral reporting mode with the general instruction, or the combination of the written reporting mode with the specific instruction that is likely to yield the greatest number of informational and experiential cognitive responses. Based on this pretest data, there was practically no difference between these alternatives in terms of relevant cognitive responses (2.77 versus 2.73). The written mode of reporting is chosen as it has the following advantages over the oral one: it is easier and less expensive to administer; the data is obtained in a more 'compact' form (respondents communicated an average of 67 words per advertisement when they were talking, compared to an average of 39 in writing); and, inter-coder reliability of coding seems to be slightly higher when cognitive responses are reported in writing. Hence a combination of a more *specific elicitation instruction with respondents writing down their thoughts* will be used in the main experiment.

Figure 6. Informational and experiential cognitive responses by type of elicitation instruction and reporting mode.



5.1.4.5 Potential covariates

Analysis of covariance provides a statistical way of controlling irrelevant sources of variation in an experiment: when some variable (covariate) affects the dependent variable of the study, it may be measured and its influence statistically controlled for, in order to more accurately assess the influence of the independent variable(s) (Wildt and Ahtola 1978). Of course, when there is no relationship between the covariate and the dependent measure, nothing is gained by analysis of covariance. As Keppel (1991, 309) points out, the main criterion for using a covariate is “a substantial linear correlation with the dependent variable.”

Table 9 presents Pearson correlation coefficients between the number of relevant cognitive responses and the five potential covariates measured. As can be seen in the table, the correlation coefficients are very low, and non-significant apart from the

negative correlation between brand usage and the number of relevant cognitive responses. This negative correlation means that, on average, those who are *not* users of the brand advertised report more cognitive responses than the brand users. (It is difficult to say why such a negative correlation emerges. It may be related to the fact that prior experience or knowledge about an issue makes the respondent retrieve cognitive responses from memory instead of generating them for the first time in this pretest.)

Table 9. Correlation between the number of cognitive responses and potential covariates.

	Ad familiarity	Brand usage	General attitude towards advertising	Product group involvement	Need for cognition
Number of informational and experiential cognitive responses	-.074	-.138*	-.009	.011	.006

* Correlation is significant at the 0.01 level

It is particularly in the case of product group involvement that the very low correlation coefficient seems surprising, as higher levels of involvement have been shown to be associated with a greater number of cognitive responses elsewhere (e.g., Celsi and Olson 1988). The study by Celsi and Olson (1988, 220), however, provides a hint that might explain the absence of correlation here: In their study, as involvement increased from low to moderate levels, there was no difference in the number of thoughts communicated. It was only at high levels of involvement (compared to low and moderate) that respondents elicited a greater number of cognitive responses. Hence, it is possible that the degree of involvement in the case of the product groups used here only ranges from low to moderate – and hence, the variation in involvement did not influence the number of cognitive responses.

On the whole, none of the potential covariates correlates substantially with the number of informational and experiential cognitive responses. Hence, it is not feasible to include any of them as covariates in the main experiment.

5.1.5 Summary – guidelines for the main experiment

The four test advertisements are: an informational advertisement for a hair-colour brand, an informational advertisement for a brand of painkillers, an experiential advertisements for a lipstick brand, and an experiential advertisement for a brand of biscuits.

The coding scheme presented in Table 5 (p. 84) for categorising cognitive responses will be employed. The aim is to achieve at least 80 per cent inter-coder reliability rates in dividing the data into separate cognitive responses as well as in coding the cognitive responses into the categories of informational, experiential, and other.

The combination of the written mode of reporting with a more specific elicitation instruction will be used because it seems to be the most effective and efficient way of collecting data (of the alternatives in this pretest).

No covariates will be employed. Of course, if research hypotheses were supported in the main experiment without the inclusion of covariates in the analysis, the results would be all the clearer.

5.2 Pretest 2 – Manipulation and measurement of independent variables

5.2.1 Objectives

The aim of pretest 2 is threefold:

The primary aim is to establish manipulation for reading goals. The reading goal manipulation aims to make the informational reading goal more accessible to half of the research participants and the experiential reading goal more accessible to the rest of the participants. What is needed is that the experimental groups are significantly different in terms of their reading goals: The hypotheses compare those with a more informational reading goal with those who have a less informational reading goal; as well as those with a more experiential reading goal with those who have a less experiential reading goal. A procedure for manipulating reading goals will be developed and assessed with a group of students.

The second aim is to operationalise the measurement of arousal. The way of measuring arousal needs to correspond to the psychological variable of interest, and the reliability of measurement needs to be established. The decision to use the multiple indicator scale developed by Mehrabian and Russell (1974) will be justified in terms of its pertinence to the theoretical variable of interest, and the internal consistency of its Finnish version will be assessed with the pretest data.

Third, pretest 2 provides an opportunity to try out the entire experimental procedure. This is because in order to assess the suggested manipulation, it will be essential to take the manipulation check *after* the research participants have reported their cognitive responses to the test advertisements (measurement of dependent variables). However, to avoid repetition in reporting, the entire experimental procedure will only be discussed when it is employed in the main experiment.

The structure of this section (5.2) is as follows: Next, a procedure for manipulating reading goal accessibility is suggested and assessed with a group of students (5.2.2). A major part of the section focuses on reporting the results of the manipulation check, including discussion on the revisions that will be made to the manipulation based on these pretest results (5.2.3). Then, the measurement of arousal is developed and evaluated with the pretest data (5.2.4). The section concludes with guidelines for the main experiment (5.2.5).

5.2.2 Developing the manipulation of reading goals

The manipulation of reading goals needs to correspond to the theoretical argument of the study. That is, when a particular reading goal is activated in a person's memory, it becomes accessible to the person, which means that the person can use it in information processing (Wright 1980; Wyer and Srull 1981). Hence, the aim is to experimentally influence goal accessibility. In addition, the manipulation should be naturalistic in a sense that the manipulated reading goal corresponds to its real life counterpart so that we actually examine what is intended – whether and how magazine reading goals truly operate to influence advertising processing (cf., Aylesworth and MacKenzie 1998).

Making a construct experimentally more accessible in memory is called *priming*. Usually, it is assumed that a construct can be primed by simply exposing a person to

the construct (Bargh 1982; Higgins et al. 1985). For example, product attributes have been experimentally primed by exposing subjects to an advertisement which emphasises a particular product attribute (Yi 1990), by making subjects read a magazine article related to a particular attribute (Yi 1993), and by asking subjects to complete a questionnaire in which several products are to be rated in terms of a certain attribute (Shavitt and Fazio 1990).

When the construct to be activated is a goal, it may not suffice that the person is exposed to a semantic concept, but the idea is to make the person adopt and pursue the goal. To achieve this, research participants have typically been presented with goal scenarios. That is, they have been asked to imagine themselves in a specific situation and adopt a specific goal outlined to them, and then, behave as they would in such circumstances (Huffman and Houston 1993). Instead of directly asking people to adopt a specific goal, a goal may also be activated by creating a relevant task expectancy (cf., Millar and Tesser 1990; France et al. 1994). For example, in the present study, participants could be told that later in the experimental session (after having read the magazine) they will be asked to assess the magazine in terms of how much new information it provided them with. Finally, a goal might be primed by exposing participants to a stimulus that is likely to induce a certain type of goal pursuit. For example, Kruglanski (1996) reports that meeting a person with a specific goal orientation (e.g., a materialistic or an idealistic one) may prime one's own goals in the respective domain.

As the aim is to make the reading goal manipulation a fairly naturalistic one, it would be best if subjects were unintrusively invited into adopting either an informational or an experiential reading goal. At the same time, however, the manipulation needs to be a fairly strong one, in order for it to last over the period of time research participants read the magazine and write down their cognitive responses to the test advertisements.

Based on the above considerations, the following procedure for manipulating reading goals was developed and assessed in this pretest. The manipulation consists of two steps: 1. exposure to a priming article, and 2. creating a task expectancy.

Priming article. Research participants are first asked to read a magazine article. In the informational reading goal condition, the article is clearly informational in its content.

In the experiential condition, the article contains material likely to induce emotional experiences, sensory images, and social comparison or identification with other people and their situations. After reading the article, research participants are asked to assess its content. In the informational condition, they are asked to rate the article in terms of four informational items; in the experiential condition, to evaluate the article for four experiential items (The items are shown in Appendix 5).

The two priming articles were selected from a set of articles that had appeared in the test magazine during the period of 1997-98. The informational article was about causes and treatment of young women's hair loss ("Suffering from a sudden loss of hair? Causes, prevention, and treatment."). The experiential article was a story about a communications professional who was recovering from mental burn-out ("Insidious burn-out"). The articles were approximately of the same length, both of them dealt with a problem, but they both shared a hopeful, bright outlook on the issue.

The use of priming articles should make the intended reading goals more accessible in two complementary ways: First, reading the article should activate either predominantly informational or experiential reading goals in a natural way. Second, the evaluation task should further strengthen goal accessibility by drawing participants' attention to either informational or experiential aspects of the article content.

Task expectancy. Secondly, research participants are told that after reading the magazine, their task is to evaluate the magazine in terms of several items – such as the ones they had been considering when rating the priming article. Specifically, for those in the informational condition, the task is introduced as assessing the magazine's value as an information source; for those in the experiential condition, the task is to assess the magazine's capability of providing the reader with a reading experience. This task expectancy is created immediately after participants have completed the assessment of the priming article. Hence, either informational or experiential items should be accessible in the person's mind and thus help the communication of what is meant by 'magazine as an information source', and by 'magazine's capability of providing a reading experience'.

Generating an anticipation of a relevant task aims to increase the likelihood that the intended reading goal remains active and accessible over the experimental session.

There is some evidence that experimentally primed goals tend to be overridden by goals that are more chronically accessible to the participants as soon as 5 minutes have passed (Bargh et al. 1994; ref. in Kruglanski 1996, 602). The idea is to enhance the chance that the goal persists by making respondents expect a task at the end of the study that is relevant in terms of the intended reading goal.

To sum up, the extent of construct accessibility has been argued to depend on the frequency and recency of its activation in memory (Bargh 1982; Higgins et al. 1985). In the outlined manipulation, exposure to the priming article, the task of assessing the article, as well as the anticipation of a task at the end of the study – all aim to activate the intended goal several times, thus making the activation more frequent. As to the recency of activation – the risk remains that the accessibility of such an experimentally activated goal will diminish over the course of the experiment. However, the anticipation of a goal relevant task at the end of the study should reduce the risk. Further, a manipulation check will be taken only after all dependent measurements. Therefore, what is required is that the manipulation check still demonstrates a significant difference in informational / experiential goal accessibility between the two experimental conditions.

The suggested reading goal manipulation was assessed with 26 female undergraduate students who were recruited from a marketing course. The students participated in their own time and received 50 FIM. None of the students had participated in pretest 1.

Data was collected in groups of 1 to 5 people, and the participants were randomly assigned either to the informational (13) or to the experiential reading goal condition (13). (Strictly speaking, the assignment was not totally random, as those who participated at the same time always served in the same reading goal condition.)

The then-current issue of the test magazine (February 1998) was employed. The magazine was shown in a folder, and two of the test advertisements were inserted into the magazine.

The procedure was as follows: First, the participants read the respective priming article and assessed it in terms of informational (in the informational condition) or experiential items (in the experiential condition). Second, task expectancy was created:

participants were told that their main task was to read the magazine for thirty minutes, and after this, to evaluate the magazine as an information source (in the informational condition), or to assess its ability to provide the reader with a reading experience (in the experiential condition). Third, they were told that – in addition to the evaluation task that would take place after they had read the magazine – they would be asked to report their thoughts in response to two pages in the magazine while they were reading. Therefore, on two occasions, they would be asked to return to the previous opening and write down their thoughts and feelings in response to the indicated page. Fourth, after having read the magazine, and so having also reported their thoughts to the two test advertisements, participants provided data for the manipulation check, filled in the arousal and affect scales, assessed the magazine issue for several informational and experiential items, and finally, reported their thoughts on the purpose of the study.

5.2.3 Manipulation check

5.2.3.1 Priming article

The assessment of the priming articles for either informational or experiential items was part of the manipulation – not part of the manipulation check. Nevertheless, it is important to examine how participants rated the articles in order to estimate in some way how fitting these particular two articles were for the purpose. At the least, the informational priming article ought to be perceived as informational in its content, and the experiential priming article as experiential in its content.

The four informational items (in the informational condition) and the four experiential items (in the experiential condition) were measured on a 7-point Likert scale (Appendix 5). The average of four items was used to indicate how informational / experiential the subjects found the article. A mean score of 7 would indicate that the article was perceived as extremely informational / experiential in content, whereas a mean score of 1 would indicate the opposite (not at all informational / experiential in content). A mean score of 4 is therefore neutral. In the case of the informational priming article, this mean score was 5.79, whereas in the case of the experiential priming article it was 5.25. Hence, it seems that both articles were perceived as intended. In addition, subjects were asked to rate the article along a general bad-good dimension (bad = 1, good = 7): the informational article received an average score of

5.85 and the experiential article an average of 5.08. Thus, both articles were positively perceived.

Now, as the articles and the respective evaluative items were distinct for the informational and experiential conditions (except for the general “bad-good” dimension), it is very difficult to compare the above figures with each other. Keeping this in mind, however, it seems that the informational article was perceived as slightly more successful in providing readers with informative content than the experiential article in providing experiential satisfactions. The higher overall evaluation score in the case of the informational article (5.85), compared with the experiential article (5.08), points to the same conclusion.

5.2.3.2 Reported satisfactions from reading

The manipulation check was based on participants’ freely reported satisfactions from reading the magazine. The question was deliberately unspecified in nature: "Please write down in your own words, What did the reading of this magazine give you?" The answers were analysed using the classification scheme that had been developed to capture informational and experiential reading goals in the pilot interview phase (section 4.2.1). That is, statements pertaining to personal learning, reality orientation, and social interaction benefits, were classified as informational satisfactions; and, statements pertaining to aesthetic, emotional (including escapism, relaxation and pastime), and intellectual stimulation, as well as social identification and approval, were classified as experiential satisfactions. Only the relevant content from the answers was classified (only statements that seemed to refer either to informational or experiential expectations of or satisfactions from reading). The classification was conducted by the author – without a reliability check with another person. This was considered adequate in the manipulation check, as the same classification scheme had proved reasonably reliable in the pilot interview phase.

Two measures (in line with, for instance, Yi 1990, 218) were used to operationalise the accessibility of the reading goals: first, a frequency-of-mention measure, which refers to the number of informational and experiential satisfactions reported by subjects; second, an order-of-mention measure, which registers whether an informational or an experiential satisfaction was mentioned first. The logic is that the more accessible reading goal is the one which is mentioned more often, and which comes to mind first (Wyer and Srull 1981).

Table 10 shows the *share of informational* and the *share of experiential satisfactions* reported in the informational and in the experiential reading goal conditions. Instead of comparing the absolute numbers of reported satisfactions (which are presented in parentheses in the Table), it is more relevant to examine the relative figures because the manipulation aims to make one group relatively more informational and less experiential in terms of their accessible reading goal than the other group. Hence, ANOVAs were run using ‘the share of informational satisfactions’ and ‘the share of experiential satisfactions’ as dependent variables and the manipulated reading goal as the independent variable (ANOVA-results are identical: share of informational satisfactions = 1 – share of experiential satisfactions).

Table 10. Manipulation check (pretest): share of informational and experiential satisfactions.

Reading goal	Share of informational satisfactions (number of informational satisfactions), mean	Share of experiential satisfactions (number of experiential satisfactions), mean
Informational	0.70 (2.00)	0.30 (1.00)
Experiential	0.58 (1.38)	0.42 (1.08)
ANOVA Results F and p values	F(df=1,24) = 0.93; p=0.346	F(df=1,24) = 0.93; p=0.346

The results show that those in the informational reading goal condition reported a greater share (70%) of informational satisfactions obtained from reading than those in the experiential condition (58%). Hence, those in the experiential reading goal condition reported a greater share (42%) of experiential satisfactions obtained from reading than those in the informational condition (30%). However, the difference failed to reach significance ($p=.346 > 0.05$). In other words, the manipulation seems to be working in the right direction, but is not strong enough from the point of view of producing two clearly distinct groups in terms of informational and experiential reading goal accessibility.

This conclusion is corroborated by the results obtained when the order-of-mention-measure was used. As has been said, the measure captures whether the respondent

first mentioned an informational or an experiential satisfaction. 72 per cent of the participants reported first an informational satisfaction and 28 per cent an experiential one. Based on a chi-squared test, these proportions were not significantly different in the informational and in the experiential reading goal conditions (though they were again in the right directions) ($\text{Chi-squared}=.33$; $p=.568$). (Appendix 6 provides the test results). Consequently, there is a need to strengthen the manipulation, so next, two revisions are presented and justified.

5.2.3.3 Revisions

Based on the above results, two revisions are suggested to the reading goal manipulation:

First, the priming article in the experiential condition is changed. The one used in this pretest fell short of its informational counterpart in two ways: First, it was rated lower (5.08) than the informational article (5.85) on the general evaluative scale (bad=1, good=7). Further, it was perceived as less successful in providing readers with experiential satisfactions (the mean of experiential items was 5.25) than the informational article was perceived in providing informational content (the mean of informational items was 5.79). Another experientially oriented article, which was about gaining mental energy and happiness from quietude (“Quietude – the source of energy”), was assessed with a group of 11 students. This article seemed to gain a better overall rating (5.36) and a higher mean of experiential items (5.5) than the first one, so it will be used as the experiential priming article in the main experiment.

The second revision to the manipulation procedure is more important. Now, in addition to making participants anticipate a reading goal relevant task at the end of the study, they will be asked to adopt the intended goal more directly. Specifically, in the informational condition, they will be asked to ‘look for information while they read as their later task is to assess the magazine as an information source’. In the experiential condition, they will be asked to ‘try to enter into the feelings, atmosphere, images, sensations, experiences and situations of people portrayed in the magazine, as their later task is to assess the magazine in terms of the reading experience’ (cf., France et al. 1994).

The impact of these changes will only be assessed when the revised reading goal manipulation is employed in the main experiment. Because the original procedure

worked in the intended direction, and the changes were required only to make the manipulation stronger, it was considered not necessary to empirically assess the revised procedure before the main experiment.

5.2.4 Measurement of arousal

Arousal has been conceptualised as an internal state of activation the person experiences as a result of the investment of processing resources into a task – which here is the reading of the magazine. Three considerations are important in operationalising arousal. First, as arousal is viewed as an experienced, internal state of an individual, it is best captured by a self-report measure. The contradictory results of studies that have used various physiological measures also suggest that a self-report measurement is likely to be more representative of a general state of activation (Thayer 1970; ref. in Eysenck 1982, 60). Also, self-report measures may generally be preferable to physiological or behavioural ones when research participants have no reason to misreport their experiences (Mitchell 1986). Second, the measurement instrument needs to correspond to the motivational role of arousal that is of interest in the study. That is, arousal is the intensity of the goal pursuit, it is associated with the activity of reading. Third, the measurement aims to capture the internal state of activation without confounding the measurement with the valence of the state (the affective pleasure-displeasure dimension of the reading experience).

One option would have been to use Thayer's (1978) activation-deactivation measure. This self-report, adjective checklist specifically aims to capture the level of arousal without including the pleasure dimension in the measurement. In particular, the items in the so called Activation Dimension A (such as, lively, active, full of pep, energetic, vigorous, activated, sleepy, tired, drowsy, wakeful) appear to be related to the motivational felt state of arousal that is of interest in the present study (in contrast to the anxiety related items suggested in Activation Dimension B) (Thayer 1978, 756; Eysenck 1982, 63). However, in line with argumentation advanced by Mehrabian, Russell, and their co-workers (Mehrabian and Russell 1974; Russell and Mehrabian 1977; Russell et al. 1989) the best option was considered to be using a measurement instrument that simultaneously, but separately, assesses arousal and affect. (The term affect is used here to refer to the pleasure-displeasure dimension of the internal state.) In so doing, it will be possible to examine their correlation in specific empirical circumstances. And, even though affect has no special theoretical role in the study, it may be useful to obtain information on it to be able to compare the research results

with prior studies (in which the measurement of arousal and affect is often inseparable).

A subset of the Mehrabian and Russell's (1974) PAD (pleasure, arousal, and dominance) scale was used. That is, the six items for measuring arousal as well as the six items for measuring affect (pleasure) were included. The items were translated into Finnish by the investigator, and Appendix 7 presents the original and the Finnish version of the scales. The items were in a semantic differential format, and a numerical scale of +1 to +9 was used for each item. For example, in the case of the item 'stimulated – relaxed', +1 was assigned for extremely relaxed and +9 for extremely stimulated. Hence, as responses were averaged across the six items to get a mean score for arousal and affect, a higher score indicated a higher level of self-reported arousal and affect. These mean scores for arousal and affect in the two reading goal conditions are shown in Table 11.

The alpha coefficients for the six-item arousal and affect scales were .67 and .83, respectively. Now, the reliability coefficient of arousal did not reach the minimum requirement of .80 pursued throughout the study. However, eliminating one of the items in the scale ('excited – calm') already increased alpha to a more acceptable level of .75. This level of internal consistency was considered acceptable, as the translation of arousal items into the Finnish language was particularly difficult. Hence, arousal and affect will be measured by the six-item scales presented in Appendix 7 in the main experiment, and in case the elimination of any item(s) increases internal consistency of the scale, it(they) will not be included in further analyses.

The study aims to examine two processes separately: first, the influence of the accessibility of a goal, and second, the influence of the intensity of the goal pursuit (arousal) on advertising processing. Hence, it is important to check that the level of arousal (and affect) is not dependent on the manipulated reading goal condition¹². The test results are shown in Table 11: Even though arousal received a slightly higher value in the informational than in the experiential goal condition, the difference was not significant ($F(df=1,25)=.79$; $p=.385>0.05$). The higher affect score in the

¹² The independence of dependent measurements is an assumption of the analysis of variance. Independence means that each observation is in no way related to any other observation. Here, if reading goal manipulation affected the level of arousal, this assumption could be violated.

informational goal condition was not significant either ($F(df=1,25)=2.13$; $p=.158>0.05$).

Table 11. Mean scores of arousal and affect in the two reading goal conditions (pretest).

Reading goal	Arousal, mean based on five items, (sd)	Affect, mean based on six items, (sd)
Informational	5.37 (1.23)	7.04 (0.92)
Experiential	4.94 (1.25)	6.50 (0.96)

5.2.5 Summary – guidelines for the main experiment

Reading goal accessibility will be manipulated in a two-step procedure: First, research participants will be asked to read a priming article and evaluate it. In the informational condition, the priming article is informational in content and the task is to assess it along informational items. In the experiential condition, the article content induces sensorial, emotional, and social experiences, and the task is to assess it along experiential items. The second step consists of asking participants to adopt a specific reading goal and generating relevant task expectancy. In the informational condition, participants will be asked to look for information while they read as their later task is to assess the magazine as an information source. In the experiential condition, they will be asked to try to enter into the feelings, atmosphere, images, sensations, experiences and situations of people portrayed in the magazine, as their later task is to assess the magazine in terms of the reading experience. The manipulation check will be based on (expected) informational and experiential satisfactions reported after reading.

Arousal will be measured by the six item scale suggested in Mehrabian and Russell's (1974) PAD Semantic Differential. Also, the six items operationalising affect (pleasure-displeasure dimension) in the scale will be included in order to assess the extent to which arousal and affect are correlated in the main experiment, and in order to be able to better compare the research results with prior studies in the field.

6 Main experiment – how informational and experiential magazine reading goals influence advertising processing

The main experiment provides an empirical test for the research hypotheses. The chapter first discusses sample size, stimulus material, experimental procedure, and measurements (section 6.1). Because the main procedural and measurement issues have been established in the two pretests, the discussion is in a compact form, and the reader will be referred to the preceding chapter (5). The focus is on analysing the results of hypotheses testing (section 6.2): First, the results of the manipulation check are reported, then the results of hypotheses testing are presented and discussed. The chapter concludes with a discussion on the potential limitations of the empirical study.

6.1 Procedure and measurements

6.1.1 Sample size and statistical power

Female university students participated in the main experiment. Both undergraduate and graduate students were recruited from several business courses, and as they were asked to come in their own time, they received a compensation of 50 FIM. None of the students had participated in the pretest -phases of the study.

The decision as to the sample size is important because it affects the power of the analyses, that is, the probability of rejecting the null hypothesis when it is false (Keppel 1991, 68). In principle, every study should strive for as high a level of power as possible. However, because power depends on many factors, it usually reflects a compromise. Power depends on the type of test being employed, the effect size, whether the design is between- or a within-subjects, the alpha level set (probability of rejecting the null hypothesis when it is true), whether the test is one- or two-tailed, and the sample size (Clark-Carter 1997, 196). In the present study, the principal test needed is the F-test, the design is between-subjects, the alpha level is set at .05 (as is

the convention), and hypotheses are tested by two-tailed significance tests¹³. Hence, the task is to choose the appropriate sample size – based on decisions on the magnitude of the effect size we wish to detect and on the desired level of power.

The analysis here is based on Cohen's (1988) guidelines for what constitutes a small/medium/large effect size with distinct designs and tests. In short, the aim is to detect *medium to large size effects*.¹⁴ In the main experiment, with F-tests, an *eta-squared* in the range of 0.059-0.138 represents a medium to large effect size (Clark-Carter 1997, 195, 254; Keppel 1991, 74). As to the desired level of power, the aim is to achieve power of 0.8. By looking in the appropriate power table (for example, in Clark-Carter 1997, p. 620) it seems that there is a need to recruit approximately 80 research participants to the main experiment: With *eta-squared* ranging from the medium effect size of 0.059 to a large effect size of 0.138, 40 research participants in each of the two reading goal conditions would lead to power levels of 0.61 and 0.95, respectively.

As said, the aim was to recruit 80 participants to the study. However, the recruitment of research participants proved to be more difficult than expected. 76 participants were actually recruited, but only 60 turned up. The best option seemed to be to carry out the experimental sessions and analyse the data provided by the 60 research participants, and then make the decision as to whether additional data collection would be needed.

6.1.2 Stimulus material

The research hypotheses make separate predictions as to the number of cognitive responses to informational and to experiential advertisements. Hence, pretest 1 (chapter 5, section 5.1.4.3) helped in choosing predominantly informational and

¹³ Hypotheses 1 to 4 make predictions as to the direction in which the outcome will occur. Hence, one-tailed tests would be appropriate. However, such directional tests have been criticised because – strictly speaking – the logic of one-tailed testing implies that true differences in the *opposite* direction should be ignored (Keppel 1991, 123). In the present experiment, all hypotheses will be tested as non-directional ones. The use of two-tailed significance tests only means adopting a more stringent significance level.

¹⁴ Estimates of expected effect sizes are often based on previous studies. Here, the decision to look for medium to large size effects is based on the study by Huffman and Houston (1993). They examined how consumers' goals direct information acquisition and the development of knowledge with a series of hypotheses, and the results that are most relevant for the present study show medium to large effect sizes.

predominantly experiential test advertisements. The four test advertisements include two informational advertisements (one promoting painkillers, the other a brand of hair colour), and two experiential advertisements (one promoting biscuits, the other a brand of lipstick).

The four advertisements were inserted into the April issue of the test magazine, which was the latest issue at the time of data collection. The magazine is a women's special interest magazine in the field of health and beauty (chapter 4, section 4.2.2). A loose sheet edition of the issue was presented in a folder, and the test advertisements were inserted in place of other advertisements that actually appeared in the issue. The order of the test advertisements was rotated so that each advertisement appeared equally often in each of the four possible positions. Such 'partial counterbalancing' should balance potential carryover effects from one measurement to the other in data (Elmes et al. 1999, 224-225).

The test advertisements basically serve as replications of the same measurements. In the case of hypotheses 3, 4, 7, and 8, the effects are hypothesised for all types of advertisements, hence the use of different types of advertisements promoting different product groups provides a sensitive test of the hypotheses. The hypotheses will first be tested for each advertisement. In case each advertisement produces the same pattern of results, data on dependent variables can be aggregated across the advertisements, and the hypotheses can be tested with data based on combined responses to the four advertisements. In hypotheses 1, 2, 5, and 6, the distinction between informational and experiential advertisements is of theoretical interest. Hence, the dependent measurements may only be aggregated across the two advertisements of the same appeal.

6.1.3 Procedure

Data was collected in groups of 1 to 4 people¹⁵. The participants were randomly assigned into either the informational (30 participants) or the experiential reading goal condition (30) (the participants that came to the same experimental session, however, always served in the same reading goal condition). The investigator ran all the 21 experimental sessions, each of which took approximately 1 hour, during one week.

¹⁵ Hence, four copies of the test magazine were used. The magazines were otherwise identical, only the order of the test advertisements was different in each.

The procedure was as follows:

1. General instructions

Participants were told that the aim of the study is to obtain their opinions and feelings about a women's special interest magazine. There would be no right or wrong answers, it was their own views that were of interest in the study. Some practice examples of the use of the Likert scale and Semantic Differential items were shown.

2. Manipulation of reading goals

In the informational condition, participants read the informational priming article and assessed it along informational items. Having finished that, the task of reading the magazine and assessing it as an information source was introduced. Specifically, participants were told that they were allowed to read or browse the magazine issue as they liked, however, they needed to start at the very first page spread and to move page by page to the end. They were told to specifically 'look for information while you are reading, as your task is to assess the magazine as an information source afterwards'. Further, there would be no hurry as they could spend up to 40 minutes on the reading.

In the experiential condition, the procedure was analogous: participants now read the experiential priming article and assessed it along experiential items (Appendix 5 presents the items used to assess the priming articles). While reading the magazine, they were asked to specifically 'try to enter into the feelings, atmosphere, images, sensations, experiences and situations of people portrayed in the magazine, as your task is to assess the magazine in terms of the reading experience afterwards'.

3. Measurement of cognitive responses to advertisements

Before participants began reading the magazine, they were also told that while they were reading, they would be asked about some pages in the magazine. That is, they would be asked to report in their own words all the thoughts and feelings the material on the page evoked in their mind.

Accordingly, on four occasions, an extra sheet inserted in the magazine folder asked the reader to return to the previous page spread, and write down her thoughts and feelings in response to the indicated advertisement. The subjects wrote down their cognitive responses in an answer booklet, which also presented the specific elicitation instruction used in the study (Appendix 1).

4. Manipulation check

When participants had written down their thoughts in response to the last of the test advertisements, they were asked to put the magazine aside and answer the rest of the questions presented in the answer booklet. First, they provided data for the manipulation check by answering the question: “As you began reading the magazine issue, what did you think the reading would give you?”

5. Measurement of arousal and affect

Then, they filled in the arousal and affect items (the measurement instrument is shown in Appendix 7).

6. Assessment of the magazine along informational and experiential items

Next, they assessed the magazine on several informational and experiential statements along a seven point Likert scale. This step was included to meet participants’ expectations of the evaluation task they had been made to anticipate. (It also might have provided supplementary data for the manipulation check. However, the data provided no additional insights, and it is not discussed further.)

7. Check of demand characteristics.

Finally, participants were asked to express their thoughts about the purpose of the study. At the end of the experimental session, participants were given the 50 FIM compensation. The importance of not talking with other students about the study during that week was strongly emphasised. This was important to avoid “diffusion of treatments”, which would be a threat to the internal validity of the study (Kirk 1995, 18).

6.1.4 Measures

Arousal and affect were measured by the six item semantic differentials suggested in the Mehrabian and Russell's (1974) PAD scale (Appendix 7. See chapter 5, section 5.2.4). The alpha coefficients for arousal and affect were 0.82 and 0.83, respectively, and there was no reason to eliminate any of the items as alpha coefficients were the highest when all six items were included in the scales. When the measurement instrument was piloted in pretest 2, the alpha coefficient for arousal was clearly lower (0.67). Now, its measurement demonstrated relatively high internal consistency.

The level of arousal and affect in the two reading goal conditions is shown in Table 12. Mean arousal score was slightly higher in the informational than in the experiential goal condition, however, the difference was not significant ($F(df=1,59)=2.28$; $p=.136>0.05$). The difference between the affect scores was minute ($F(df=1,59)=0.06$; $p=.801>0.05$).

Table 12. Mean scores of arousal and affect in the two reading goal conditions.

Reading goal	Arousal, mean (sd)	Affect, mean (sd)
Informational	5.11 (1.06)	6.54 (1.12)
Experiential	4.65 (1.29)	6.60 (0.90)

Cognitive responses to advertisements were classified into the categories of informational, experiential, and other, based on the coding scheme presented and piloted in pretest 1 (chapter 5, section 5.1.3.1). First, however, data needed to be separated into single cognitive responses. The investigator and another Ph.D. student independently divided the data into separate cognitive responses: inter-rater reliability was 94% (calculated as the percentage of the total number of segment indicators on which the two raters agreed; as suggested by Green and Gilhooly 1996, 63) (Appendix 8 presents specifications which guided the breaking up of data into separate cognitive responses.). Inter-rater reliability for coding the cognitive responses into the categories of informational, experiential, and other was 84% (calculated as the percentage of coding agreements to the total number of codings; Kassirjian 1977, 14). Disagreements between the coders were resolved by discussion. Both reliability rates were now higher than they had been in pretest 1, where the

coding scheme was established. This was probably a result of the discussion of the disagreements between the coders in the pretest phase, which helped in establishing a common frame of reference between the coders.

The cognitive response data consisted of a total of 1007 cognitive responses. On average, respondents reported 4.2 thoughts in response to a test advertisement, and this average ranged between the four advertisements from the lowest of 4.1 (informational advertisement for a brand of hair colour) to the highest of 4.5 (informational advertisement for a brand of painkillers). As discussed in chapter 5 (section 5.1.4.2) these averages are well in accordance with prior studies that have examined thoughts people generate in response to advertisements. Table 13 shows the distribution of cognitive responses into the coding categories.

Table 13. Number and percentage of cognitive responses in coding categories.

Category name	Number of CRs	Percentage
1. Physiological consequences	78	7.7
2. Product features	210	20.9
3. Functional benefits	50	5.0
INFORMATIONAL, total	338	33.6%
4. Aesthetic pleasure	65	6.5
5. Sensorial experiences	62	6.2
6. Emotional experiences	147	14.6
7. Social experiences	136	13.5
EXPERIENTIAL, total	410	40.7%
OTHER, total	259	25.7%
Total	1007	100%

On the whole, the data provided by the 60 research participants was ‘complete’: each person elicited cognitive responses to each test advertisement, filled in arousal and affect scales, and answered the manipulation check question.

6.2 Results

6.2.1 Manipulation check

The manipulation check was based on participants' answers to the question: "As you began reading the magazine, what did you think the reading would give you?" The answers were analysed according to the classification scheme that had been developed in the pilot interview phase (chapter 4, section 4.2.1). Accordingly, the investigator identified statements that referred either to informational or to experiential satisfactions, and the share of informational and experiential satisfactions provided an operational definition for the accessibility of the reading goals. In addition, the order of mention – whether an informational or an experiential satisfaction was mentioned first – was used to assess the accessibility of reading goals (Yi 1990; Wyer and Srull 1981) (see chapter 5, section 5.2.3.2).

The *share of informational* and the *share of experiential satisfactions* reported in the two reading goal conditions are shown in Table 14 (absolute numbers in parentheses). The results show that the manipulation was successful. In the informational goal condition, the share of informational satisfactions reported was significantly higher (83%) than in the experiential goal condition (56%). Hence, the share of experiential satisfactions was also significantly higher in the experiential (43%) than in the informational goal condition (17%) ($F(df=1,57)=13.66$; $p=0.000<0.05$).

Table 14. Manipulation check: share of informational and experiential satisfactions.

Reading goal	Share of informational satisfactions (number of informational satisfactions), mean (sd)	Share of experiential satisfactions (number of experiential satisfactions), mean (sd)
Informational	0.83 (1.73)	0.17 (0.57)
Experiential	0.56 (1.40)	0.43 (1.03)
ANOVA Results F and p values * $p<0.05$	$F(df=1,57) = 13.66$; $p=0.000^*$	$F(df=1,57) = 13.66$; $p=0.000^*$

As to the order-of-mention measure, 67% of the respondents first mentioned an informational satisfaction and 33% an experiential one. Based on a chi-squared test, these proportions differed significantly, and in the intended directions between the reading goal conditions. In the informational reading goal condition 86% of the respondents first mentioned an informational satisfaction, and, in the experiential reading goal condition an experiential satisfaction came to mind first for 52% of the respondents ($\chi^2=9.47$; $p=0.002<0.05$) (Test results are shown in Appendix 9).

Overall, the analyses above suggest that the manipulation was capable of producing the reading goal conditions required for hypotheses testing: It will be possible to compare ‘readers with a more informational reading goal with those with a less informational reading goal’ as well as, ‘readers with a more experiential reading goal with those with a less experiential reading goal’, by comparing the two experimental groups. However, the differences between the manipulated conditions, though clear and statistically significant, are not very large ($\eta^2=0.20$). This reflects the difficulty of experimentally manipulating a construct that is a joint product of the person, stimulus, and situation. On the positive side, if the research hypotheses gained support with the manipulation employed in the study, the results would be all the more convincing.

6.2.2 Hypotheses

Hypotheses 1 and 2

The first two research hypotheses predict that an activated reading goal directs attention to goal-relevant advertisements. ‘More attention’ has been operationalised by a greater number of cognitive responses generated to an advertisement. Accordingly,

H1: When a person’s reading goal is informational, the person generates a greater number of cognitive responses to informational advertisements than a person whose reading goal is experiential.

H2: When a person’s reading goal is experiential, the person generates a greater number of cognitive responses to experiential advertisements than a person whose reading goal is informational.

The two advertisements of the same appeal provide replications of the same measurements in H1 and H2. However, let us first look at the results for each advertisement independently to see whether data can be aggregated across the two informational (H1) and across the two experiential advertisements (H2). In Table 15, the number of cognitive responses to the two informational advertisements is shown (H1); in Table 16, the dependent measure is the number of cognitive responses to experiential advertisements (H2). As can be seen, in both tables, the cell means between the two reading goal conditions differ very little from one to another: there is clearly no difference in the number of cognitive responses generated to the informational advertisements, nor to the experiential advertisements between the two experimental groups. Hence, neither H1 nor H2 gain support from the data.

Table 15. Number of cognitive responses to informational advertisements by reading goal.

Reading goal	Number of CRs to informational advertisement ‘painkiller’, mean (sd)	Number of CRs to informational advertisement ‘hair colour’, mean (sd)
Informational	4.43 (1.45)	4.13 (1.43)
Experiential	4.53 (1.59)	4.00 (1.91)
ANOVA Results F and p values	F(df=1,59)=0.07; p=0.800	F(df=1,59)=0.09; p=0.761

Table 16. Number of cognitive responses to experiential advertisements by reading goal.

Reading goal	Number of CRs to experiential advertisement ‘lipstick’, mean (sd)	Number of CRs to experiential advertisement ‘biscuit’, mean (sd)
Informational	4.27 (1.51)	4.10 (1.37)
Experiential	4.00 (1.55)	4.10 (1.67)
ANOVA Results F and p values	F(df=1,59)=0.46; p=0.502	F(df=1,59)=0.00; p=1.000

The lack of support for H1 and H2 is indisputable in the data – and there is no need to aggregate responses across the advertisements. The accessible reading goal did not increase the number of thoughts research participants generated in response to goal-relevant advertisements. The broader issue of whether such an empirical finding should lead one to abandon the theoretical hypothesis, or to question the means through which the observations were obtained, will be discussed in Conclusions (chapter 7, section 7.2). In the following, the discussion focuses on the latter: in particular, the measurement of the amount of attention by the number of cognitive responses and by the specific procedure employed, is reconsidered.

In persuasion studies, the amount of attention and the extent of processing have been measured by the duration of time people allocate to a stimulus, by the number of cognitive responses, and/or, by a recall measure (Gardner et al. 1985; Celsi and Olson 1988; Olney et al. 1991; Goodstein 1993). Here, the number of cognitive responses was chosen as the sole indicator of the dependent variable (see chapter 4, section 4.2.3.1). There is some evidence that the number of cognitive responses is a valid indicator of the amount of attention and processing. For example, studies manipulating (reducing) the amount of attention by presenting a distracting stimulus during ad exposure, have shown that reduced attention results in fewer cognitive responses (see in, Gardner et al. 1985).

However, it seems that the measurement procedure may have been inadequate: when research participants were asked to return to the previous page spread in the

magazine and report their thoughts in response to the indicated test advertisement, they were ‘forced’ to pay attention to the ad stimulus. The procedure might have produced a situation in which respondents consciously aimed to produce an appropriate number of thoughts to each of the test advertisements – rather, than reflect the influence of their accessible reading goal on the amount of attention and processing effort they were willing to devote to various advertisements within the magazine. Indeed, this interpretation gains some support from the data. Several respondents spontaneously reported that had they not been asked to return to the previous page and have a look at the indicated advertisement, they would have not paid any attention to it.¹⁶

However, even though respondents had felt that they needed to produce an ‘appropriate’ number of thoughts to each of the test advertisements – simply because they were asked to respond to these advertisements – this should not have totally eliminated the predicted effect. If hypotheses 1 and 2 are correct, even in a forced exposure situation, it is still logical to assume that when an advertisement is relevant to a person’s reading goal, it evokes more attention and processing effort than when this is not the case. To further probe the question, two post-hoc indicators for the amount of attention were created. First, attention was measured by the *number of words* respondents elicited in response to advertisements. In fact, the number of words, instead of the number of cognitive responses, might be a more objective measure of the amount of attention in the present study, because the cognitive responses were separated based on their meaning. The correlation between the number of words and the number of cognitive responses across advertisements was 0.48. Using the number of words as the dependent measure, however, did not make any difference to the results.

The second post-hoc measure for the amount of attention was as follows: the amount of attention to informational advertisements (H1) was measured by the number of informational cognitive responses a person elicited to an advertisement before any other types of cognitive responses, and the amount of attention to experiential

¹⁶ The number of respondents spontaneously reporting having not paid attention to the test advertisement before they were asked to, varied between the test advertisements as follows: 13 (informational painkiller ad), 8 (informational hair colour ad), 4 (experiential lipstick ad), and, 5 (experiential biscuit ad). Further, it is probable that these figures underestimate the number of respondents who felt the same way. Hypotheses 1 and 2 were also tested based on a subset of data from which the above responses were eliminated. The results, however, did not give further insight.

advertisements (H2) was measured by the number of experiential cognitive responses that were reported before any other cognitive responses. The logic is that if the forced exposure situation made respondents produce additional thoughts, these additional thoughts were likely to be reported after naturally occurring advertisement-relevant responses. These post-hoc measures, however, are not good indicators for the amount of attention, because they also – and inseparably – measure the content of cognitive responses. In short, this post-hoc analysis did not provide further insight: Hypothesis 1 gained support when the dependent measure was ‘number of informational cognitive responses before other cognitive responses to informational advertisements’ ($F(1,59)=5.29$; $p=0.025<0.05$). Hypothesis 2 did not get support when the dependent measure was ‘number of experiential cognitive responses before other cognitive responses to experiential advertisements’ ($F(1,59)=0.64$; $p=0.428>0.05$). However, support to hypothesis 1 can be explained in terms of the effect of reading goal on the *content* of advertising processing rather than its influence on the amount of attention to informational advertisements. This interpretation is based on the analysis of hypothesis 3 (which will be shortly presented). The reading goal explains more variation when the dependent measure only captures the content of advertising processing (share of informational cognitive responses in H3) than when it captures both content and amount of advertising processing (the above post-hoc measure for attention).

Hypotheses 3 and 4

Hypotheses 3 and 4 make predictions about the influence of an activated reading goal on the content of advertising processing. The operationalisation of the dependent variable is based on the share of informational and experiential cognitive responses to the total number of cognitive responses.

H3: When a person’s reading goal is informational, the person generates a greater share of informational cognitive responses to advertisements than a person whose reading goal is experiential.

H4: When a person’s reading goal is experiential, the person generates a greater share of experiential cognitive responses to advertisements than a person whose reading goal is informational.

Now, all the four test advertisements provide replications for the same measurements in H3 and H4. Therefore, let us first look at the results for each advertisement independently to see whether it is reasonable to aggregate the data across advertisements. In H3, the dependent variable is the share of informational cognitive responses. In the case of three advertisements, the share of informational cognitive responses was higher in the informational reading goal condition than in the experiential one. In the case of the experiential ‘biscuit’ advertisement there was no difference in the share of informational cognitive responses between the experimental groups. As the three advertisements produced effects in the same direction, and there was no difference in the dependent measurements between the reading goal conditions in the case of the fourth advertisement, it seems reasonable to aggregate data on the share of informational cognitive responses across advertisements. In H4, the dependent measure is the share of experiential cognitive responses to the total number of cognitive responses. The pattern of results was similar to that presented for H3: Respondents reported relatively more experiential cognitive responses in the experiential reading goal condition than in the informational one in response to three of the advertisements. In the case of the experiential ‘biscuit’ advertisement there was no difference between the experimental conditions. Hence, the data on the share of experiential cognitive responses can be aggregated across the four advertisements.

Hence, the type of reading goal was the independent variable, and the share of informational cognitive responses and the share of experiential cognitive responses – aggregated across advertisements – were the two dependent measurements in MANOVA. MANOVA is the more appropriate analysis here, because there is a clear correlation between ‘share of informational cognitive responses’ and ‘share of experiential cognitive responses’ (calculated across advertisements, this correlation was -0.58)¹⁷.

Table 17 (H3) and Table 18 (H4) show test results when data has been aggregated across all four advertisements, as well as across the two informational, and across the two experiential advertisements. Both hypotheses gain support from the data. The Box’s M test indicated that the homogeneity assumption was valid (Box’s $M=4.75$,

¹⁷ There was no need to include the other dependent variable of the study – the number of cognitive responses – in the same analysis, because there is no logical connection between the amount and content of processing. Also, there were no significant correlations between the number of cognitive responses and the share of informational/experiential cognitive responses in the data.

F=1.53, $p=0.206 > 0.05$). The overall MANOVA tests of significance showed that there was a statistically significant association between the type of reading goal and the dependent measurements ($F=6.23$; $p=0.004 < 0.05$)¹⁸.

As predicted by H3, and shown in Table 17, participants in the informational reading goal condition generated a significantly higher share of informational thoughts (39%) in response to the test advertisements than those in the experiential goal condition (29%) ($F=7.29$; $p=0.009 < 0.025$)¹⁹. However, when analyses were conducted separately on the informational and on the experiential advertisements (last two columns in the table), it became apparent that it is the informational advertisements that produced the hypothesised effect in the data. The difference in the share of informational thoughts between the reading goal conditions was significant in the case of the informational advertisements ($F=8.94$; $p=0.004 < 0.025$), but nonsignificant in the case of the experiential advertisements ($F=0.22$; $p=0.645 > 0.025$). Therefore, it seems that the influence of the activated reading goal emerged only with the goal-relevant advertisements in this case.

Table 17. Share of informational cognitive responses by reading goal.

Reading goal	Share of informational CRs to <i>all</i> advertisements, mean (sd)	Share of informational CRs to <i>informational</i> advertisements, mean (sd)	Share of informational CRs to <i>experiential</i> advertisements, mean (sd)
Informational	0.39 (0.13)	0.55 (0.19)	0.22 (0.14)
Experiential	0.29 (0.14)	0.39 (0.23)	0.20 (0.17)
ANOVA Results F and p values * $p < 0.05$	$F(df=1,59)=7.29$; $p=0.009^*$	$F(df=1,59)=8.94$; $p=0.004^*$	$F(df=1,59)=0.22$; $p=0.645$

¹⁸ All multivariate test statistics (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root) produce the same result when there are only two experimental groups.

¹⁹ The effect is significant when the Bonferroni procedure is used to control the alpha level in multivariate analysis. This involves dividing the univariate alpha level of 0.05 by the number of dependent variables used in the analysis (Bray and Maxwell 1993, 371). Here, new alpha is $0.05/2=0.025$.

As predicted by H4 (Table 18), respondents in the experiential reading goal condition reported a significantly higher share of experiential cognitive responses (46%) than those in the informational reading goal condition (34%) ($F=11.43$; $p=0.001<0.025$). Again, however, it seems that it is the two informational advertisements in particular that produced the significant result ($F=14.63$; $p=0.000<0.025$). The difference, though in the right direction, failed to be significant in the case of the experiential advertisements ($F=1.05$; $p=0.309>0.025$).

Table 18. Share of experiential cognitive responses by reading goal.

Reading goal manipulation	Share of experiential CRs to <i>all</i> advertisements, mean (sd)	Share of experiential CRs to <i>informational</i> advertisements, mean (sd)	Share of experiential CRs to <i>experiential</i> advertisements, mean (sd)
Informational	0.34 (0.13)	0.20 (0.16)	0.49 (0.21)
Experiential	0.46 (0.14)	0.37 (0.19)	0.55 (0.19)
ANOVA Results F and p values * $p<0.05$	$F(df=1,59)=11.43$; $p=0.001^*$	$F(df=1,59)=14.63$; $p=0.000^*$	$F(df=1,59)=1.05$; $p=0.309$

To sum up, hypotheses 3 and 4 gain support when cognitive responses are aggregated across all advertisements. However, the analyses performed on informational and experiential advertisements separately indicate that it is in the case of informational advertisements in particular that the hypotheses are supported. Now, it is impossible to know why the activated reading goal was reflected in the content of respondents' thinking in the case of the informational advertisements but not necessarily in the case of the experiential advertisements. Nevertheless, a highly plausible explanation is provided by the difference between informational and experiential advertisements in that the former (informational ads) included both informational and experiential elements, whereas the latter (experiential) did not contain many informational cues. Therefore, it is probable that the experiential advertisements, and the biscuit advertisement in particular, simply did not lend themselves to many informational interpretations. In the case of the biscuit advertisement, cognitive responses that were

classified as informational in content almost exclusively contained the same single idea – that eating biscuits makes one put on weight.

Statistical significance does not tell us about the importance, or magnitude of an effect. Here, we get some idea about the size of the effect by considering the differences between the cell means: When we look at the shares of informational and experiential cognitive responses when responses have been combined across all advertisements, the differences between the two experimental groups are approximately 10 percentage units. That is, the share of informational cognitive responses is 39% in the informational goal condition, whereas it is 29% in the experiential goal condition. And, the share of experiential cognitive responses is 46% in the experiential and 34% in the informational goal condition. This comparison between sample means gives us an estimate of the actual magnitude of the effect that might be found in real life circumstances. A theoretically more interesting measure of the effect size is provided by eta-squared, which reports how much of the variation in the dependent variable is explained by the independent variable (Iversen and Norpoth 1976, 30). Eta-squared values for effects across all advertisements were:

<u>dependent variable</u>	<u>eta-squared</u>
share of informational cognitive responses	0.112
share of experiential cognitive responses	0.165

Hence, 11.2% of the variance in the share of informational cognitive responses and 16.5% of the variance in the share of experiential cognitive responses can be explained as being due to the activated reading goal. Comparison with other studies is difficult because many studies fail to report effect sizes (For example, studies by Yi (1990) and Ratneshwar et al. (1990) would provide interesting benchmarks for the present study. However, the authors do not report effect size indices.) Huffman and Houston (1993) report an effect size of 0.10 (omega-squared) for the influence of a product choice goal on the content of acquired information in a choice task (the results showed that goal-relevant information dominates the content of feature information acquired). Based on the study by Huffman and Houston (1990), as well as effect sizes that have typically been reported in social psychological studies, the ones obtained in the present study are relatively large; that is, larger than the average or “medium” effect sizes represented by eta-squared 0.06 (Cooper and Findley 1982; Keppel 1991).

Hypotheses 5 and 6

Hypotheses 5 to 8 make predictions as to the influence of arousal on the amount and content of advertising processing. It has been argued throughout the study that the influence of arousal is not independent of the activated reading goal and the type of the advertisement. Hypotheses 5 and 6 predict that higher levels of arousal (vs. lower levels) lead a person to pay more attention to goal-relevant advertisements.

H 5: There is interaction between arousal and reading goal on the number of cognitive responses to informational advertisements. When arousal increases, the number of cognitive responses to informational advertisements increases when a person's reading goal is informational, but remains unaffected when the reading goal is experiential.

H 6: There is interaction between arousal and reading goal on the number of cognitive responses to experiential advertisements. When arousal increases, the number of cognitive responses to experiential advertisements increases when a person's reading goal is experiential, but remains unaffected when the reading goal is informational.

Now, the hypotheses include two independent variables: a qualitative one (type of reading goal) and a quantitative one (level of arousal). These variables are of equal theoretical interest in the present study; the aim is to examine their joint effect on the number of cognitive responses to informational (H5) and to experiential advertisements (H6); as well as on the share of informational (H7) and on the share of experiential cognitive responses (H8). Specifically, it is predicted that the influence of arousal on the dependent measurements is not the same in the two qualitatively distinct reading goal conditions (there is interaction). An appropriate analysis is provided by analysis of covariance (ANCOVA). A 'regression perspective' is adopted in which all effects are assessed simultaneously, with each effect adjusted for all other effects in the model (see in Wildt and Ahtola 1993, 253).

In testing H5 and H6 the interest is in the interaction term – in the joint effect of reading goal and arousal. However, there was no interaction between reading goal and arousal on the number of cognitive responses to informational (H5: $F=0.69$; $p=0.410>0.025$), or, on the number of cognitive responses to experiential advertisements (H6: $F=0.02$; $p=0.881>0.025$). This lack of support to hypotheses 5

and 6 is not surprising considering the lack of support to hypotheses 1 and 2. To recapitulate, the activated reading goal did not increase the number of cognitive responses reported to goal-relevant advertisements as was hypothesised by H1 and H2. Essentially, it has been argued that arousal should strengthen the effect predicted by H1 and H2 because increased arousal is likely to lead to higher level of cognitive resource activation and to make the person allocate a greater proportion of the available processing resources to goal-relevant information. However, as activated reading goal did not increase attention to goal-relevant advertisements in the data (H1 and H2), it is logical that increased arousal did not enhance this effect (H5 and H6).

Even though higher levels of arousal did not direct more attention to goal-relevant advertisements as was hypothesised, it is possible that higher levels of arousal increased the amount of attention to advertisements irrespective of the activated reading goal. As has been discussed in chapter 3 (section 3.2.3), higher levels of arousal may increase attentional capacity and the speed of cognitive processing, thus leading to more attention and processing effort devoted to a stimulus (Eysenck 1982; Kahneman 1973; Tavassoli et al. 1995). To examine whether arousal had an effect on the amount of attention paid to advertisements irrespective of the reading goal, regression between arousal and the number of cognitive responses to the two informational, to the two experiential, and to all four advertisements was run. Overall, there were no significant linear relationships between the level of arousal and the number of cognitive responses to the advertisements. However, all the regression coefficients (of separate regression lines) had positive signs, consistently indicating a (non-significant) positive relationship between arousal and the number of cognitive responses to advertisements. For the number of cognitive responses across all advertisements, beta coefficient was 0.12 ($t=0.95$; $p=0.348$). Moreover, when attention was measured by the number of words respondents elicited in response to the advertisements, there was a significant positive relationship between arousal and the number of words to all advertisements (beta coefficient=0.26, $t=2.07$, $p=0.043<0.05$).

The above regression analyses are interesting for two reasons: First, they give at least some indication of the validity of the measurement of arousal in the study. Second, a positive relationship between arousal and amount of attention to advertisements indicates that higher levels of arousal enhanced rather than disrupted advertising processing.

Hypotheses 7 and 8

Hypotheses 7 and 8 predict that increased arousal leads a person to report a greater proportion of cognitive responses that correspond to the activated reading goal:

Hypotheses 7: There is interaction between arousal and reading goal on the share of informational cognitive responses. When arousal increases, the share of informational cognitive responses increases when a person's reading goal is informational, but remains unaffected/decreases²⁰ when a person's reading goal is experiential.

Hypotheses 8: There is interaction between arousal and reading goal on the share of experiential cognitive responses. When arousal increases, the share of experiential cognitive responses increases when a person's reading goal is experiential, but remains unaffected/decreases when a person's reading goal is informational.

Again, ANCOVA is the appropriate analysis where the share of informational cognitive responses (H7) and the share of experiential cognitive responses (H8) are the dependent variables and reading goal and arousal are the independent variables. The hypotheses gain support where there is interaction between the reading goal and the level of arousal, and this interaction shows the predicted pattern. In short, there was no interaction between reading goal and arousal on the share of informational cognitive responses (H7: $F=0.10$; $p=0.752>0.025$), or, on the share of experiential cognitive responses aggregated across all advertisements (H8: $F=0.20$; $p=0.658>0.025$). Because reading goal did have an influence on the share of informational and experiential cognitive responses, in particular in the case of informational advertisements – H3 and H4 – the interaction hypotheses were also tested separately on the two informational and the two experiential advertisements. However, there was no interaction between reading goal and arousal on the dependent variables – neither for the informational (H7: $F=0.10$; $p=0.755>0.025$ & H8: $F=0.75$; $p=0.389>0.025$), nor for the experiential advertisements (H7: $F=0.22$; $p=0.641>0.025$ & H8: $F=0.03$; $p=0.859>0.025$).

²⁰ The content of advertising processing is operationalised by relative measures – share of informational, share of experiential, and share of other cognitive responses to the total number of cognitive responses. When the share of one category of cognitive responses increases, the share of at least one of the two remaining categories decreases.

The results suggest that even though reading goal did increase the share of goal-relevant cognitive responses to advertisements (H3 and H4), increased levels of arousal did not enhance this effect. In order to better understand the role arousal had on the content of advertising processing – if any – the possibility that arousal impacted the content of cognitive responses irrespective of the reading goal was checked. Again, there were no significant relationships between arousal and the share of informational or experiential cognitive responses. The only relationships worth mentioning were a (nonsignificant) negative linear relationship between arousal and the share of experiential cognitive responses (beta coefficient= -0.15, $t = -1.11$; $p=0.270$), and a (nonsignificant) quadratic (inverted U-shape) relationship between arousal and the share of informational cognitive responses (a positively signed coefficient for arousal ($p=0.322$) and a negatively signed coefficient for arousal squared ($p=0.358$)).

The discussion above illustrates that it was impossible to find any systematic influence of arousal on the content of advertising processing in the data. Highly speculatively, the regression analyses might hint that medium levels of arousal (compared to the lowest and highest levels in the data) made respondents generate relatively more informational thoughts in response to advertisements, whereas the share of experiential cognitive responses decreased when the level of arousal increased. However, these regression results were far from significant.

Finally, it is possible that the measurement of arousal was not independent of the level of affect, that is, the pleasantness of the reading experience. Hence, let us shortly examine whether there were any significant influences on the content of thinking that could be explained by variation in the level of affect: There were no significant interactions between reading goal and affect on the share of informational or experiential cognitive responses. When the influence of affect was examined irrespective of the reading goal, there were no significant relationships either. The only relationship worth mentioning was a (nonsignificant) negative linear relationship between the affect and share of informational cognitive responses (beta coefficient= -0.13 , $t = -1.01$, $p=0.317$).

6.2.3 Summary of results and potential weaknesses of measurement

Two aspects of advertising processing were of interest in the study: the amount of attention and the content of advertising processing. Let us first summarise results concerning the *amount of attention*. Activated reading goals were predicted to increase the amount of attention to goal-relevant advertisements (H1 and H2), further, higher levels of arousal were predicted to make the person allocate more attention to goal-relevant advertisements (H5 and H6). These hypotheses did not get support from the data.

It has been suggested that this lack of support may be due to insufficiencies in measuring the amount of attention. In particular, the procedure which forced participants' attention to the advertisements may have produced a situation in which participants produced an appropriate number of thoughts to each of the test advertisements, irrespective of the amount of attention and processing effort they, in reality, were willing to devote to these advertisements. With hindsight, a recall measure, therefore, might have better captured the amount of attention paid to different types of advertisements in the course of reading. A recall measure was considered when planning the experiment. However, it could not have been used in the same study in which the content of advertising processing needed to be inferred from participants' cognitive responses. The validity of the cognitive response method requires that data is collected concurrently or immediately after exposure to the stimulus. Hence, cognitive responses needed to be collected as close to natural ad exposure as possible to obtain information about the content of advertising processing, and any recall measure taken later on, again, would have reflected nothing but a forced exposure.

Another possible weakness in measurement may be related to the determination of goal-relevant advertisements: it may be that the advertisements that had a predominantly informational appeal were simply not perceived as clearly more relevant than those with an experiential appeal by participants pursuing an informational reading goal – and vice versa. If there was an insufficient distinction between informational and experiential focus in the test advertisements, this was a weakness in the measurement. However, in reality, most advertisements contain both informational and experiential elements, and therefore, results that would hold only for extreme cases would not have practical relevance. It is also possible that the type

of advertising appeal did not make the advertisement more or less relevant for those pursuing an informational or an experiential reading goal. This would mean that the hypotheses were incorrect, and this possibility will be discussed in Conclusions (section 7.2).

The fact that hypotheses 5 and 6 did not gain support was not surprising because of the lack of support to hypotheses 1 and 2. To recapitulate, as activated reading goal did not increase attention to goal-relevant advertisements, it is logical that increased arousal did not enhance this effect. The positive relationship between arousal and the amount of attention to advertisements (when measured by the number of words participants reported to the test advertisements) gives some support to the validity of the measurement of arousal. It may also suggest that all test advertisements, irrespective of their main appeal, were perceived as relevant information for both those in the informational as well as in the experiential reading goal condition.

The rest of the hypotheses made predictions as to the *content of advertising processing*. Hypotheses 3 and 4 predicted that an activated reading goal is reflected in the content of advertising processing so that the share of reading-goal-relevant cognitive responses to advertisements is enhanced. Hypotheses were supported: those pursuing an informational reading goal generated a greater share of informational cognitive responses, and those pursuing an experiential reading goal produced a greater share of experiential cognitive responses than the ones in the other reading goal condition. This effect was clear when data was aggregated across all advertisements. However, when the effect was tested separately on informational and experiential advertisements, it became apparent that the activated reading goal was reflected in the content of advertising processing in the case of the informational advertisements in particular, but not necessarily in the case of the experiential advertisements. This finding might suggest that the test advertisements were not equivalent in the sense that predominantly informational advertisements contained both informational as well as experiential elements – and thus lent themselves to both informational and experiential interpretations – whereas experiential advertisements may have been more ‘pure’ cases of experiential appeals, leaving less room for diverse interpretations.

Hypotheses 7 and 8 predicted that higher levels of arousal further increase the proportion of reading-goal-relevant cognitive responses to advertisements. The

hypotheses did not get support. It is difficult to say why higher levels of arousal did not enhance the selectivity of advertising processing that was found when testing hypotheses 3 and 4. One possibility is that the variation in arousal between the readers was insufficient to produce the predicted effect. Further, the fact that arousal was a measured variable, instead of a manipulated one, may have ‘blurred’ the actual effect of arousal in the data.

To sum up, the main finding of the empirical study is support to the argument that an activated processing goal, which is directed towards reading a particular issue of a magazine, is reflected in the content of advertising processing. Specifically, reading-goal-relevant information dominated the content of thinking in response to advertisements. The other hypotheses were not supported. First, an activated reading goal did not increase the attention paid to goal-relevant advertisements. Second, arousal did not have the predicted effects on the amount and content of advertising processing. Specifically, higher levels of arousal did not increase attention to goal-relevant advertisements, or increase the proportion of reading-goal-relevant thoughts in response to advertisements. The Conclusions chapter (7) aims to build a coherent picture of the research findings. Section 7.2, in particular, further synthesises the empirical findings by considering as a whole the results of hypotheses testing and post-hoc analyses, potential limitations of the measurement, and the possibility that the research hypotheses that did not get support are not correct.

6.2.4 Demand characteristics

Demand characteristics refer to the possibility that research participants make inferences about the purpose of an experiment and adjust their behaviour in line with what they think are the goals of the study. Usually, it is thought that modification of behaviour is in the direction of support for the research hypotheses (Orne 1952; ref. in Bryman 1988; Kirk 1995, 20). A common means of avoiding such reactivity is the use of a cover story – participants are told of the purpose of the study, and the true purpose is not the one presented to them. Often, the purpose of an experiment is disguised by using a ‘two-studies’ paradigm in which the manipulation of the independent variable and the measurement of the dependent variable are conducted in ostensibly independent studies (e.g., Mackie and Worth 1989; Batra and Stayman 1990).

In the present study, it was important not to separate reading the magazine from processing of the advertisements – because advertising processing was examined as a part of the reading experience. Indeed, it has been suggested that artificial separation between the event that is assumed to induce the independent variable and the dependent measurement may produce effects that have no counterparts in natural settings (Aylesworth and MacKenzie 1998). Here, the relationship between the activation of the reading goal and the processing of embedded advertisements was such that it was considered unwise to aim to separate the reading goal manipulation and the measurement of cognitive responses to advertisements into two studies. Nevertheless, it is essential that the participants did not consciously guess the hypotheses and then modify their behaviour.

Responses to the question about the purpose of the study revealed that 13 of the 60 respondents made some connection between the reading goal manipulation and the processing of advertisements. Naturally, nobody guessed the exact hypotheses, but the responses indicate that some reactivity might have been present²¹. However, elimination of these 13 respondents from the data, suggested no alterations to the research results. Hence, demand characteristics were not considered a threat to valid inference making in the study.

Finally, let us consider the risk that statistical power was at an unacceptably low level – that is, true differences were not found because of the small sample size (60). This seemed not to be the case. It is highly unlikely that *hypotheses that were not supported* by the data would have been supported with a larger sample size: there were no ‘almost’ significant findings, and the effect sizes were minute. In the case of hypotheses 3 and 4, which were supported by the data, observed power was at a high level (0.76 in case of H3, and 0.91 in case of H4). Consequently, there was no reason to recruit more research participants (which would have been possible because data did not need to be collected from research participants at the same time).

²¹ The following responses illustrate the kind of connections participants (13) made between reading goal manipulation and cognitive responses to advertisements: [The purpose of the study was to] “„examine feelings and experiences that magazine articles and advertisements evoke in a reader’s mind.”(the respondent was assigned to the experiential goal condition), “..to study advertisements and associations they trigger. Or, to examine information carried by advertisements as well as this magazine.” (in the informational goal condition), “..see whether the advertisements were suitable for the “atmosphere” of the magazine. Or probably something else, as I believe the true purpose of the study was being disguised.” (in the experiential reading goal condition).

7 Conclusions

7.1 Summary and conclusions about the research question

This study examined advertising processing in the context of people's media use. At a general level, the study aimed to increase knowledge of advertising processing in ordinary ad exposure situations.

The study set out to examine the link between reasons for media use and advertising processing. An extensive body of studies has examined how media factors influence how people perceive and respond to advertisements (section 2.1). A variety of media related aspects has been investigated – for instance, program genre; characteristics of editorial content such as perceived believability or prestige; liking of a program; program or editorial induced mood state, arousal, and involvement. However, no other study in the field has asked the question of why a person chooses to attend to a particular medium vehicle or content in the first place. Essentially, this study argued that the reasons for media use – which have been extensively examined within the gratificationist tradition of media studies (Blumler and Katz 1974; Rosengren et al. 1985) – have implications for the subsequent processing of information in advertisements.

The decision to focus on *media goals* and *arousal* as the independent variables of the study was an outcome of analysing prior research on the effect of context induced involvement. Making a synthesis of these studies is a contribution in itself (section 2.2). Moreover, this synthesis suggested that there is a need to have a closer look at the motivational state that is experienced during media use. In particular, prior studies have failed to realise that the motivational state experienced during media use is not directed toward editorial or program material per se (e.g., Soldow and Principe 1981; Norris and Colman 1992; Lord et al. 1994; Tavassoli et al. 1995), but rather, it is directed toward some need gratification that media content or vehicle exposure can provide. This distinction is important as it suggests that an audience member may be motivated to pay attention to and process all the information within the media content – advertising included – that he or she perceives as relevant to the processing goal he or she is pursuing.

The focus on media goals brought into light two factors that may impact advertising processing: the *content of the goal* and the associated *state of arousal*. Based on literature in the study of motivation and goals (e.g., Krech et al. 1962; Atkinson 1964; Bettman 1979), and research on how accessible constructs in memory influence information processing (e.g., Wyer and Srull 1981; Huffman and Houston 1993), the content of the goal was predicted to direct audience members' attention to advertising information that they perceive as relevant to their currently active goal (sections 3.1 and 3.2). This highlighted the need to explicitly take into account the *type of the advertisement* – that is, to consider when an advertisement, or information in it, is relevant to a specific media goal. Further, looking at the goal-relevance of an advertisement provided an opportunity to shed light on some controversial findings about the influence of context induced arousal on advertising processing, as is discussed next.

Prior studies on media context induced arousal have yielded somewhat contradictory results as to whether increased levels of arousal are likely to enhance (e.g., Tavassoli et al. 1995; Lord et al. 1994) or disrupt advertising processing (e.g., Pavelchak et al. 1988; Broach et al. 1995; Norris and Colman 1992). In the study of arousal, it is widely held that arousal mainly influences attentional processes, and in particular, there is robust evidence that increased arousal selectively directs attention to stimuli that are relevant to the task the person is pursuing (Easterbrook 1959; Eysenck 1982). Hence, the relevance of advertising information to the media goal the person is pursuing should be an important factor in explaining whether increased arousal is likely to enhance or disrupt processing of a specific advertisement (section 3.2.3).

Overall, a synthesis of prior studies suggested that it is fruitful to examine the following three factors simultaneously: what a person pursues in a media exposure situation (the content of a media goal), the associated state of arousal, and the relevance of advertising information to the media goal. The hypotheses can be summarised as follows: Hypotheses 1 and 2 argued that activated media goals direct attention to goal-relevant advertisements (Bettman 1979; Gardner et al. 1985; Celsi and Olson 1988; Huffman and Houston 1993). Hypotheses 3 and 4 predicted that the content of advertising processing reflects the activated media goal (Wyer and Srull 1981; Yi 1990, 1993; Huffman and Houston 1993; Kruglanski 1996). Hypotheses 5 to 8 made predictions about the influence of arousal on the amount and content of

advertising processing (Easterbrook 1959; Berlyne 1960; Eysenck 1982; Tavassoli et al. 1995). It was argued that higher (vs. lower) levels of arousal make the person allocate more attention to goal-relevant advertisements, and make the person generate a greater share of goal-relevant thoughts in response to advertisements (section 3.4).

In order to make the hypotheses empirically testable, the question of what constitutes relevant information to a specific media goal needed to be answered. The relevance of advertising information to media goals was determined based on a division of both media goals and advertisements into the categories of informational and experiential. Such a dichotomy has been widely used to typify motives of media use (McGuire 1974; Panula 1988) as well as to distinguish between different types of advertising strategies (Puto and Wells 1984; Rossiter et al. 1991). Specifically, an informational media goal refers to a situation in which the person pursues information that is expected to be useful at some later point in time, and a relevant advertisement was assumed to be one which aims to persuade by providing factual information for product choice. An experiential media goal refers to emotional, aesthetic, intellectual, and social stimulation, and a relevant advertisement was assumed to be one which aims to persuade by providing and promising such experiential satisfactions. Finally, the empirical object of the study was the medium of magazines. Hence, the influence of magazine reading goals on the processing of magazine advertisements was examined.

7.2 Conclusions about the results

In this section, the main results and conclusions about each research hypothesis in turn are presented. The discussion first summarises and considers the results within the context of prior research. Then, potential weaknesses of measurement (some of which have already been presented in section 6.2.3) as well as potential weaknesses in formulating the research hypotheses are discussed. The aim is to build as coherent a picture of the findings as possible.

Hypotheses 1 and 2 predicted that activated media goals increase the amount of attention to goal-relevant advertisements. Specifically, H1 predicted that when a person's media goal is informational, the person pays more attention to informational advertisements than a person whose media goal is experiential. H2 predicted that when a person's media goal is experiential, the person pays more attention to

experiential advertisements than one pursuing an informational media goal. These hypotheses were not supported by the data. It is, however, a widely held premise that goals provide a key directing factor for consumer information processing (Bettman 1979). The hypotheses of the present study can be seen as analogous to those that have been advanced, and which have received empirical confirmation in some prior studies. For example, Huffman and Houston (1993) found that subjects whose goal was to acquire a guitar that is comfortable to use mainly acquired information about features related to comfort, whereas those whose goal was to acquire a musically versatile instrument mainly acquired information about features related to versatility. Peterman (1997) also, built her argumentation on the logic that product choice goals direct information acquisition to what seems to be goal-relevant information. She compared concrete feature-related, and abstract lifestyle-oriented product choice goals, and the results of the study revealed differences in research participants' information processing that could be explained by goal-based selectivity in information acquisition.

It has been suggested earlier (sections 6.2.2 and 6.2.3) that the lack of support to H1 and H2 may be due to insufficiencies in the measuring of attention. In particular, the measurement procedure that forced participants' attention to the advertisements, may have made them produce an 'appropriate' number of thoughts to each of the test advertisements, instead of measuring the amount of attention they were willing to devote to different types of advertisements. Hence, even though this should not have totally eliminated the predicted effect in the data, this weakness in measurement, coupled with a not very strong manipulation, may have produced a situation in which the measurement model did not provide an adequate test for the hypotheses. Interestingly, in the study by Huffman and Houston (1997), goal-based selectivity in information processing emerged for the first trial in a four-trial experiment, but was not significant during the later trials. The authors reasoned that "even though consumers are goal directed in information acquisition, the mere presence of non-relevant information may lead them to believe that the "extra" information needs to be checked out for completeness.." (p. 197). The present study may have suffered from a similar type of problem.²²

²² Moreover, the validity of using the number of cognitive responses as the (sole) measure of the amount of attention can be criticised. The number of cognitive responses may be a more direct indicator of the extent of cognitive elaboration than of the sheer amount of attention paid to a stimulus. With hindsight, the study may not have adequately distinguished between the constructs of attention and the extent of cognitive elaboration.

It is also possible that the research hypotheses are not correct. H1 and H2 not only predicted that activated media goals direct attention to information that is relevant to the goal, but also that informational advertisements – as defined in the study – are the ones that provide relevant information to informational media goals, and experiential advertisements to experiential media goals, respectively. Hence, empirical test of the hypotheses also investigated the way of determining relevance between media goals and types of advertisements. This way of defining relevance (section 3.3.2) was well justified: On the one hand, it was based on a body of research showing that media use can be characterised in terms of two distinct motives – information seeking and experiential pursuits (for a review, see Panula 1993, 39). On the other hand, an analogous dichotomy between advertisements that persuade by providing factual information and those that promise experiential satisfactions is well established (Aaker and Norris 1982; Puto and Wells 1984; Vaughn 1986; Rossiter et al. 1991). However, it may be that these categories are too broad and varied in content to establish a clear connection between media goals and corresponding advertisements. For example, if a person is looking for information on a healthy diet, an informational advertisement promoting, say, painkillers may be perceived as totally irrelevant in the situation. Hence, for the hypothesised effects to take place, a “match” between more specific media goals and corresponding advertising appeals might have been needed.²³ ²⁴ Studies that have found empirical support for goal-based selectivity in information processing (Huffman and Houston 1993; Peterman 1997), have examined fairly specific product choice goals, and relevant information has been determined in terms of product attributes and benefits that correspond to the choice goal.

²³ It is important to emphasise that even though the study examined two broad categories of media goals – informational and experiential – it did not aim to argue that people would simply want any information, or that the need would be for any kind of experience in a media consumption situation. Indeed it is more likely that audience members seek information on some topic(s), or a certain type of experience in a particular situation. The fact that media goals were manipulated on the broad informational/experiential level was based on the idea that the person would be either in an informational or experiential frame of mind which would direct attention to advertisements that have a similar type of appeal.

²⁴ The choice to examine the two broad categories of media goals can be criticised in terms of convergent validity. Namely, the study does not provide empirical validation for the assumption that informational and experiential media goals are uni-dimensional rather than multi-dimensional constructs. Such uni-dimensionality is assumed in testing hypotheses 1, 2, 5, and 6, in order to establish goal-relevancy between informational/experiential media goals and corresponding advertisements. However, in case of hypotheses 3, 4, 7, and 8, uni-dimensionality need not be present.

To conclude discussion on H1 and H2, based on this one empirical experiment, there is no rational way of deciding whether the method was inadequate, or whether the research hypotheses were not correct. However, it would be premature to abandon the basic argument that activated media goals direct attention to goal-relevant advertising. Rather it is more likely that the hypotheses failed to correctly determine the relevance between media goals and advertising information; or that the measurement of attention was not a valid indicator of how much attention research participants would devote to informational and experiential advertisements in a non-experimental setting. A future study is needed to solve these questions.

Hypotheses 3 and 4 predicted that an activated media goal influences the content of advertising processing so that the share of goal-relevant thoughts in response to advertisements is enhanced. In particular, H3 predicted that when a person's media goal is informational, the person generates a greater proportion of informational thoughts in response to advertisements than a person whose media goal is experiential. H4 predicted that when a person's media goal is experiential, the person generates a greater share of experiential thoughts to advertisements than one pursuing an informational media goal. The data supported the hypotheses.

Support for these hypotheses can be seen as further evidence for the argument that currently active goals provide a means of encoding incoming information (Gardner et al. 1985; Huffman and Houston 1993; Krugman 1996) – and more generally, that currently active constructs in memory influence how new information is interpreted (Wyer and Srull 1981; Yi 1990). As has been pointed out (section 3.4), however, the hypotheses only predicted that the active media goal influences the content of advertising processing so that the share of goal-relevant thoughts is enhanced. Whether this effect was due to research participants interpreting information in test advertisements in terms of their currently active goal, or to their propensity to process more extensively information that they perceived as goal-relevant in the advertisements, was not empirically investigated. Strictly speaking, therefore, the results do not unambiguously demonstrate that research participants interpreted the meaning of advertising information in terms of their currently active media goal. The findings show that the goal a person pursues in a specific media consumption situation increases the share of goal-relevant thoughts and inferences the person makes from embedded advertisements.

Even though H3 and H4 gained support across advertisements, the effect was not significant when it was separately examined for the experiential advertisements. It has been suggested that there might have been a difference between informational and experiential test advertisements in that the former included both factual information as well as experiential elements whereas the latter did not contain many informational cues (section 6.2.2). Thus, the experiential test advertisements did not lend themselves to many informational interpretations. In more general terms, it seems that the activated media goal is capable of impacting the content of advertising processing when the advertisement is open to various interpretations or inferences, but not necessarily when the advertisement has a more unambiguous meaning. This finding is consistent with earlier studies showing that when a stimulus – such as product information in an advertisement – is open to multiple interpretations, concepts that have been activated by contextual factors can determine how this stimulus is perceived (Yi 1990, 1993).

Across advertisements, the influence of the media goal on the content of advertising processing was clear and significant. The effect sizes were as follows: for H3 η^2 was 0.11, and for H4 it reached 0.17. These effect sizes can be considered substantial as they were produced by a relatively weak manipulation: Because media goals are strongly influenced by individual factors (see section 3.2.1), they are not easily manipulated. Larger effect sizes than the ones reported here can also be expected in real-world conditions with media content that is either clearly informational or experiential in nature – here, the test magazine was deliberately chosen so that it provided a balance of informational and experiential content.

The above discussion already hints at the ecological validity of the findings. As has been said (section 4.1.2), the realism of the manipulation and the use of a real magazine and advertisements as stimulus material do not guarantee generalisability of results to ‘real-world’ conditions, nevertheless, they should increase the likelihood that research participants behaved as they would in a real magazine reading situation. The use of real advertisements is worth mentioning: Very often, experimental persuasion studies treat research participants as completely naïve with respect to relevant product or brand knowledge (Poiesz et al. 1994). Here, research participants were more or less familiar with the product or brand advertised – and many with the

advertising message²⁵. The fact that some prior brand or ad knowledge is often present in a real advertising exposure situation should increase the ecological validity of the findings.

Hypotheses 5 and 6 predicted that when the level of arousal experienced during media exposure increases, the amount of attention paid to goal-relevant advertisements increases. Specifically, H5 predicted that when arousal increases, the amount of attention to informational advertisements increases when a person's media goal is informational, but remains unaffected when the media goal is experiential. H6 predicted that when arousal increases, the amount of attention to experiential advertisements increases when a person's media goal is experiential, but remains unaffected when the media goal is informational. Neither of the hypotheses gained support from the data.

The lack of support for H5 and H6 is not unexpected considering the lack of support for H1 and H2. Essentially, hypotheses 5 and 6 argued that arousal further increases attention to goal-relevant advertisements. However, as activated media goals did not increase the attention paid to advertisements that were defined as goal-relevant (H1 and H2), it is logical that arousal did not enhance this effect.

Hence, the same potential weaknesses that have been discussed in conjunction with H1 and H2 may have been present: that is, weaknesses in the measurement of attention, and in the specification of the relevance between media goals and advertisements. Let us also reconsider the measurement of arousal. The six arousal-items from the Mehrabian and Russell's (1974) PAD (pleasure, arousal, and dominance) scale were used. The scale has been developed to capture the internal state of activation people experience in various situations (Mehrabian and Russell 1974, 216), and as such, it appeared as fitting for the present purpose.²⁶ However,

²⁵ Initially, the idea was to treat brand and ad familiarity as covariates, but as they did not correlate significantly with the dependent measures, this was not worthwhile.

²⁶ It could be criticised, however, that the scale did not measure arousal that was a result of investment of mental resources into the reading task. When using the scale (see Appendix 7), respondents were asked to indicate the feeling state that they experienced as they were reading the magazine. It is true that this instruction does not guarantee that the state respondents reported was associated with the media goal they were pursuing. However, as the goal manipulation was successful in making research participants to pursue either an informational or experiential reading goal, and as there was no other tasks available in the experimental situation, it is a reasonable assumption that the state of arousal they reported was associated with the manipulated reading task.

the reliability of measurement may have suffered from the fact that research participants needed to assess the state they experienced over a relatively lengthy period of time. If they had felt their emotional state changing during the experimental session, they may have found the task of assessing “how they felt most of the time” difficult. Nevertheless, the same scale has been successfully utilised in prior studies – where the interest has similarly been in inter-individual differences in the level of arousal experienced, for example, during a product trial (Kempf 1999), and as a result of watching the Super Bowl game (Pavelchak et al. 1988).

It is also possible that there was not enough variation in the level of arousal research participants experienced to produce predicted effects. However, a post-hoc analysis revealed a positive relationship between arousal and the amount of attention paid to advertisements (irrespective of the activated reading goal). This gives at least some indication of the validity of the measurement of arousal in the study: prior research suggests a positive relationship between arousal and processing effort – when arousal ranges between the lower and higher ends of moderate levels of arousal, and when it is produced by the task being performed (Eysenck 1982; Tavassoli et al. 1995). The finding is consistent with studies showing that arousal experienced during media use enhances rather than disrupts advertising processing (Lord et al. 1994; Tavassoli et al. 1995). There also exists contradictory evidence showing that higher levels of arousal induced by exposure to media material negatively affect advertising processing (Pavelchak et al. 1988; Broach et al. 1995). The present study indicates that increases in the level of arousal in a typical, moderately arousing media consumption situation are likely to enhance the attention paid to advertisements. It is also probable that a positive relationship between arousal and attention to advertisements emerges when the advertisements are perceived as an integral part of media content – not as interrupting material that “separates parts of the actual” program or editorial content (Soldow and Principe 1981, 59).

Finally, **hypotheses 7 and 8** predicted that when the level of arousal experienced during media exposure increases, the share of goal-relevant thoughts in response to advertisements increases. Specifically, H7 predicted that when arousal increases, the share of informational thoughts in response to advertisements increases when a person’s media goal is informational, but remains unaffected/decreases when a person’s media goal is experiential. In a similar way, H8 predicted that when arousal increases, the proportion of experiential thoughts in response to advertisements

increases when a person's media goal is experiential, but remains unaffected/decreases when a person's media goal is informational. The hypotheses were not supported.

Hence, even though the media goal did increase the share of goal-relevant thoughts generated in response to advertisements (H3 and H4), arousal did not enhance this effect. As discussed earlier, the impact of an activated media goal on the content of advertising processing may be due to two processes: people interpret information in advertisements in terms of their currently active goal, or they process goal-relevant material in advertisements more extensively. Though speculative, the lack of support for H7 and H8 might favour the first of the explanations – that research participants indeed interpreted advertising information in terms of their media goal. The logic is that if an activated media goal had simply made them process goal-relevant material in advertisements more extensively, then, higher levels of arousal should have enhanced this effect (because there is robust evidence that arousal increases attentional selectivity to goal/task-relevant information, e.g., Eysenck 1982).

Taken as a whole, empirical support for the hypotheses was rather weak. An activated media goal did not increase attention to goal-relevant advertisements (H1 and H2), and arousal did not have the predicted effects on the amount of attention paid to goal-relevant advertisements (H5 and H6), or on the share of goal-relevant thoughts generated in response to advertisements (H7 and H8). However, hypotheses about the impact of a media goal on the content of advertising processing got clear support (H3 and H4). Hence, implications for practice are mainly based on this empirical finding (next section). The lack of support for the other hypotheses raises many questions that require additional research (section 7.4).

7.3 Implications for practice

It has been argued that the persuasive power of a message depends on the nature of the thoughts consumers generate upon exposure to the message (Wright 1973; Petty et al. 1991). Hence, the finding that an informational media goal increases the share of informational thoughts, and an experiential media goal the share of experiential thoughts to advertisements, can have implications for persuasion. From the advertiser's point of view it implies that media goals are one additional factor that can restrict advertisers' control over the impact of their message – or put differently, one additional factor to be taken into account in media planning.

Of course, the mere generation of a greater proportion of either informational or experiential thoughts and inferences in response to an advertisement does not tell about the persuasive impact of the message. However, advertisers often aim to increase either type of thoughts in consumers' minds. With an informational creative strategy they aim to make the consumer elaborate on and accept factual brand benefit claims, and with an experiential strategy, for instance, to evoke positive emotional and sensorial "consumption imagery" thoughts (e.g., Rossiter and Percy 1997, 120, 213; Stafford and Day 1995, 57). Hence, it seems logical to suggest that a 'match' between the goal a person is pursuing during media use and the creative strategy of an advertisement, increases the likelihood that the person perceives the persuasive message as has been intended by the advertiser; whereas in the case of a 'mismatch', the advertisement may lose its persuasive power.

The question for the advertiser is, 'Will it be possible and feasible to control, or to take into account, what types of media goals consumers have when they are exposed to advertisements?' The opportunity to 'control' media goals lies in the possibility of finding vehicles and types of content that evoke processing goals which seem to correspond to the persuasive strategy of an advertisement. The fact that many media environments have become more specialised in their content increases the possibility to take into account consumers' media goals: with a more specialised content, audience members have more similar, shared media goals. The feasibility of collecting information on consumers' media goals and adopting this knowledge in media and creative planning, however, remains to be empirically assessed.

Implications for practice not only emerge from empirical findings, but also from the theoretical argumentation advanced in the study. At a more general level, the basic argument of the study can be summarised as follows: people attend to media vehicles and content for particular reasons. If advertisements can in part offer people what they are looking for in a specific media consumption situation, people are likely to view advertisements as valuable media material, as a relevant part of the media content which may be worth their attention. This perspective is clearly different from the typical standpoint according to which media advertising is disturbing, interrupting material which audience members first and foremost try to avoid. When advertisements are basically thought of as 'interruptions' to the editorial reading of consumers, the task of the advertiser is to create ever new executional elements in

order to make consumers pay at least some attention to and tolerate the advertiser's messages. This study suggests a change to this rather pessimistic stance. Maybe the question to ask should be *whether and how the advertiser can design messages that are perceived as an integral part of media content, that is, messages that are relevant from the point of view of the audience members' goals when they choose to attend to a particular media content*. Such a change in perspective would require that the creative and media planning would become a truly integrated activity.

7.4 Suggestions for future research

Like most research, this study raises questions for future research. Let us first consider questions that spring from the lack of empirical support for the research hypotheses.

One empirical study should not cause one to either accept or abandon the theoretical argument (Hull 1988; Schaller et al. 1995). Hence, a future empirical study which succeeds in avoiding the potential weaknesses in hypotheses testing which were identified post-hoc (sections 6.2.3 and 7.2), is worth conducting. Specifically, the way of measuring attention in this study may not have been a valid indicator of the amount of attention research participants were willing to devote to each of the test advertisements. To check this possibility, a less intrusive method, which does not instruct participants to pay attention to the test advertisements, is needed. One option would be to take recall scores at the end of the experimental session. However, recall is not necessarily a good indicator of attention (e.g., Goodstein 1993, 95). A better option might be to register the duration of time people allocate to a target advertisement with the aid of computer technology (for example, stimulus material could be presented on computer screen) or with the aid of eye-movement cameras.²⁷

It has been also suggested that even though the theoretical argumentation had otherwise been correct, the hypotheses may have failed to correctly determine the relevance between media goals and types of advertisements. Hence, a future study might explore other dimensions of relevance between media goals and advertising

²⁷ As has been pointed out (section 6.2.3), when participants are not instructed to pay attention to test advertisements, it is impossible to collect cognitive response data and hence examine the content of advertising processing. Thus, a separate study, where the amount of attention to test advertisements is the only dependent measurement, should be conducted.

information than the informational-experiential –dichotomy advanced here. It is likely that more specific goal pursuits and corresponding information in advertisements would better establish perceived relevance between media goals and advertisements (for example, looking for nutritional information from media content, and advertisements with nutritional information). However, one needs to carefully consider how well such very specific goal pursuits represent actual media use, as well as, what is the practical relevance of research findings that are based on manipulations at a very fine level.

Even the hypotheses that did get empirical confirmation suggest a need for additional research. Namely, based on this study alone, it is very difficult to assess whether the impact of an active media goal on the content of advertising processing (H3 and H4) generalises outside the medium of magazines and magazine advertisements to other print and broadcast media. On the one hand, there is no reason why the argumentation should not hold in other media as long as the object of a media goal and the media content which is assumed to be influenced by that goal are analysed at the same level (see section 1.4). On the other hand, empirical confirmation in other media is necessary because of the specificity of the media goal manipulation employed. Further, additional research with advertisements promoting different product categories and using a variety of creative elements should help to establish generalisability of the finding.

The finding that informational and experiential media goals increase the share of goal-relevant thoughts to advertisements, encourages one to explore whether media goals impact other types of cognitive responses as well. Cognitive responses could be categorised into support-arguments, counter-arguments, and neutral thoughts to further probe potential implications for persuasion. For example, one could examine whether readers seeking information would generate more support-arguments to informational advertisements and more counter-arguments to experiential advertisements than those with an experiential reading goal (and vice versa). Also, the content of advertising processing could be examined in terms of the marketing and non-marketing ‘uses of advertising’ identified by O’Donohoe (1993). Her study showed that people use advertisements in many ways, in other words, advertisements provide people with many satisfactions, some of which more directly support marketers’ interests (e.g., information, quality assurance, consumption stimulation), while others can be characterised as ‘non-marketing’ in nature (e.g.,

playing with advertising content, use of actors as role models, ego-enhancement). It would be interesting to examine linkages between reasons for attending to the media and the functions that advertising serves to audience members.

The study did not shed much light on the controversial findings of the impact of context induced arousal on advertising processing (section 2.2.2). However, a post-hoc analysis showed a positive relationship between arousal and attention paid to advertisements. It was proposed that within a typical range of arousal experienced during media use, such a positive relationship is likely to emerge when advertising is perceived as an integral part of media material. Future research is needed to establish when advertisements are perceived as an integral part of media material. One option is to examine the ‘uses of advertising’ as suggested above: advertising is likely to be well-integrated into the media content when, to the audience member, it serves similar functions as the rest of the media content.

Overall, the present study illustrates a need to conduct more research on the role of goals in advertising processing. Given the widespread presumption that goals provide a key directing factor for consumer information processing, the area is clearly understudied. Further, the studies that have been conducted have focused on consumers’ purchase or product choice goals. However, when people are exposed to persuasive communications, they may be primarily pursuing other than product choice goals. As this study illustrates, goals that characterise what people think they are primarily pursuing in particular situations – like the media goals examined in this study – can have an impact on how advertising information is perceived in that situation. Hence, continuing to investigate goals that people have in mind when they encounter commercial messages should advance our understanding of advertising processing and impact in ordinary exposure situations.

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Appendices

Appendix 1. Two alternative elicitation instructions.

General instruction:

“Talk to the tape recorder / Write down in the space provided below the thoughts and feelings you had while watching the advertisement. Your thoughts may be related to anything in the advertisement: to buying or using the product, as well as to any aspect of the ad execution – such as the person(s), situation, or atmosphere portrayed in the advertisement. The advertisement may also have triggered associations about your own experiences.

Please, report now in your own words the thoughts and feelings the advertisement evoked in your mind.”

Specific instruction:

”Talk to the tape recorder / Write down in the space provided below the thoughts and feelings you had while watching the advertisement. Your thoughts may be related to anything in the advertisement. They may be related to the product: buying the product, product features, benefits or other consequences of product use. Your thoughts may also reflect feelings and sensorial experiences (smell, taste, emotion, beauty). The advertisement may also have triggered associations about people portrayed in the advertisement, about other people, or about yourself and your own experiences.

Please, report now in your own words the thoughts and feelings the advertisement evoked in your mind.”

Finnish versions used in the study

Yleinen vastausohje:

”Kerro ääneen nauhalle / Kirjoita alla olevaan tilaan mitä ajatuksia ja tunteita mainos sinussa herätti. Ajatuksesi voivat liittyä mihin tahansa mainoksessa olevaan: ne voivat liittyä tuotteen ostamiseen tai käyttämiseen, mutta yhtä hyvin mainoksen toteutukseen – kuten henkilöön, esitettyyn tilanteeseen, tunnelmaan. Ajatuksesi ja tunteuksesi voivat olla omakohtaisia mielle yhtymiä.

Kerro nyt siis omin sanoin mainoksen herättämistä ajatuksistasi ja tunteuksistasi. Ole hyvä!”

Täsmennetty vastausohje:

”Kerro ääneen nauhalle / Kirjoita alla olevaan tilaan mitä ajatuksia ja tunteita mainos sinussa herätti. Ajatuksesi voivat liittyä mihin tahansa mainoksessa olevaan. Ne voivat liittyä tuotteeseen: tuotteen ostamiseen, tuoteominaisuuksiin, tuotteen käytön

seurauksiin tai hyötyihin. Ajatuksesi voivat olla myös tunteita, aistielämyksiin liittyviä (tuoksu, maku, tunne, kauneus); ne voivat liittyä mainoksessa kuvattuihin ihmisiin, muihin ihmisiin, tai itseesi. Ajatuksesi ja tuntemuksesi voivat olla omakohtaisia miellelyhtymiä.

Kerro nyt siis omin sanoin mainoksen herättämistä ajatuksistasi ja tuntemuksistasi. Ole hyvä!”

Appendix 2. Zaichkowsky's (1994) Revised Personal Involvement Inventory.

To me (the product group to be judged) is:

important	_____	_____	_____	_____	_____	_____	unimportant *
boring	_____	_____	_____	_____	_____	_____	interesting
relevant	_____	_____	_____	_____	_____	_____	irrelevant *
exciting	_____	_____	_____	_____	_____	_____	unexciting *
means nothing	_____	_____	_____	_____	_____	_____	means a lot to me
appealing	_____	_____	_____	_____	_____	_____	unappealing *
fascinating	_____	_____	_____	_____	_____	_____	mundane *
worthless	_____	_____	_____	_____	_____	_____	valuable
involving	_____	_____	_____	_____	_____	_____	uninvolving *
not needed	_____	_____	_____	_____	_____	_____	needed

* indicates item is reverse scored

Source: Zaichkowsky (1994, 70)

Finnish version used in the study

(Tuoteryhmä, esim. kosmetiikka) on minulle:

tärkeää	_____	_____	_____	_____	_____	_____	merkityksetöntä *
tylsää	_____	_____	_____	_____	_____	_____	kiinnostavaa
olennaista	_____	_____	_____	_____	_____	_____	epäoleellista *
jännittävää	_____	_____	_____	_____	_____	_____	latteaa *
ei merkitse mitään	_____	_____	_____	_____	_____	_____	merkitsee paljon
viehättää minua	_____	_____	_____	_____	_____	_____	ei viehätä minua *
kiehtovaa	_____	_____	_____	_____	_____	_____	arkista *
arvotonta	_____	_____	_____	_____	_____	_____	arvokasta
mukaansa-tempaavaa	_____	_____	_____	_____	_____	_____	ei-mukaansatempaavaa *
tarpeetonta	_____	_____	_____	_____	_____	_____	tarpeellista

* arvot muutetaan käänteisiksi

Appendix 3. Revised Need for Cognition Scale by Cacioppo, Petty, and Kao (1984).

These 18 items were translated into Finnish and measured on a seven point Likert scale (anchored by totally disagree and totally agree) as is shown on the next page.

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is my idea of fun. *
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. *
5. I try to anticipate and avoid situations where there is likely chance I will have to think in depth about something. *
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to. *
8. I prefer to think about small, daily projects to long-term ones. *
9. I like tasks that require little thought once I've learned them. *
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much. *
13. I prefer my life to be filled with puzzles that I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort. *
17. It's enough for me that something gets the job done; I don't care how or why it works. *
18. I usually end up deliberating about issues even when they do not affect me personally.

* indicates item is reverse scored

Source: Cacioppo, Petty, and Kao (1984, 307)

-> continues on the next page

Finnish version used in the study

Arvioi kunkin väittämän kohdalla kuinka hyvin se kuvaa omaa mielipidettäsi asteikolla:

täysin	melko	jonkin	en samaa	jonkin	melko	täysin
eri	eri	verran	mieltä, en	verran	samaa	samaa
mieltä	mieltä	eri	eri mieltä	samaa	mieltä	mieltä
		mieltä		mieltä		

___ : ___ : ___ : ___ : ___ : ___ : ___

täysin	täysin
eri	samaa
mieltä	mieltä

1. Pidän enemmän monimutkaisten kuin yksinkertaisten ongelmien ratkaisemisesta. _____:_____:_____:_____:_____:_____:
2. Otan mielelläni vastuun tilanteesta, joka edellyttää paljon ajattelutyötä. _____:_____:_____:_____:_____:_____:
3. Ajatteleminen ei ole mielestäni hauskaa. * _____:_____:_____:_____:_____:_____:
4. Teen mielummin jotain sellaista joka vaatii vain vähän ajattelemista kuin jotain sellaista joka varmasti tarjoaa haasteita ajattelukyvylleni. * _____:_____:_____:_____:_____:_____:
5. Pysin ennakoimaan ja välttämään tilanteita, joissa joutuisin todennäköisesti ajattelemaan perusteellisesti jotain asiaa. * _____:_____:_____:_____:_____:_____:
6. Saan tyydytystä asioiden perusteellisesta pohtimisesta. _____:_____:_____:_____:_____:_____:
7. En ajattele enempää kuin on välttämätöntä. * _____:_____:_____:_____:_____:_____:
8. Ajattelen mielummin pieniä päivittäisiä projekteja kuin pitkälle tulevaisuuteen ulottuvia. * _____:_____:_____:_____:_____:_____:
9. Pidän tehtävistä jotka edellyttävät vain vähän ajattelua sitten kun olen oppinut ne. * _____:_____:_____:_____:_____:_____:
10. Ajatus siitä että etenen huipulle ajatteluni ansiosta viehättää minua. _____:_____:_____:_____:_____:_____:

11. Nautin todella tehtävistä joissa keksitään uusia ratkaisuja ongelmiin. _____ : _____ : _____ : _____ : _____ : _____
12. Uusien ajattelutapojen oppiminen ei innosta minua.* _____ : _____ : _____ : _____ : _____ : _____
13. Pidän siitä että elämässäni on paljon älyllisiä haasteita ratkaistavana. _____ : _____ : _____ : _____ : _____ : _____
14. Abstrakti ajattelu viehättää minua. _____ : _____ : _____ : _____ : _____ : _____
15. Pidän enemmän tehtävästä joka on älyllinen, vaikea ja tärkeä, kuin tehtävästä joka on jonkun verran tärkeä mutta ei edellytä paljon ajattelua. _____ : _____ : _____ : _____ : _____ : _____
16. Koen pikemminkin huojennusta kuin tyydytystä kun saan päätökseen tehtävän joka vaatii paljon henkistä ponnistelua. * _____ : _____ : _____ : _____ : _____ : _____
17. Minulle riittää että asiat saadaan hoidettua; en välitä niinkään ymmärtää miten ja miksi ne toimivat. * _____ : _____ : _____ : _____ : _____ : _____
18. Ryhdyn usein pohtimaan asioita vaikka ne eivät edes koskisi minua henkilökohtaisesti. _____ : _____ : _____ : _____ : _____ : _____

* arvot muutetaan käänteisiksi

Appendix 4. Contrasts between advertisements - share of informational / experiential thoughts.

Multiple comparisons: Tukey's HSD				
Dependent variable	Ad number (I)	Ad number (J)	Mean difference (I - J)	sig.
Ratio of informational CRs to all	1	3	0.318*	0.000
		6	0.257*	0.000
		10	0.001	1.000
	10	3	0.313*	0.000
		6	0.252*	0.000
	3	6	-0.006	0.749
Ratio of experiential CRs to all	1	3	-0.286*	0.000
		6	-0.354*	0.000
		10	-0.008	0.565
	10	3	-0.208*	0.003
		6	-0.276*	0.001
	3	6	-0.007	0.798

*The mean difference is significant at the .05 level.

Appendix 5. Items used to assess the priming articles.

Informational article:

Please, indicate your degree of disagreement/agreement with the statements below.

- | | Strongly disagree | Strongly agree |
|--|---|-----------------------|
| 1. The article provided me with new information. | _____ : _____ : _____ : _____ : _____ : _____ | |
| 2. I would characterise the information in the article as generally worth knowing, even though it were not personally useful for the reader at the moment. | _____ : _____ : _____ : _____ : _____ : _____ | |
| 3. I obtained information that is personally relevant and useful for my daily life. | _____ : _____ : _____ : _____ : _____ : _____ | |
| 4. The style of the article was very informative. | _____ : _____ : _____ : _____ : _____ : _____ | |
| | bad | good |
| 5. On the whole, the article was | _____ : _____ : _____ : _____ : _____ : _____ | |

Experiential article:

Please, indicate your degree of disagreement/agreement with the statements below.

- | | Strongly disagree | Strongly agree |
|--|---|-----------------------|
| 1. Reading of the article was relaxing: it was easy to put aside my own daily businesses for a while and enjoy the images evoked in the article. | _____ : _____ : _____ : _____ : _____ : _____ | |
| 2. Reading of the article made me think about my own life: to make connections to my own situation and experiences. | _____ : _____ : _____ : _____ : _____ : _____ | |
| 3. Reference to sensorial experiences in the article – such as “the breath of spring in the air at an early hour of the day”, or “I took my clothes off and crawled into the frigid lake water” – enhanced the reading experience. | _____ : _____ : _____ : _____ : _____ : _____ | |
| 4. The style of the article was very emotional. | _____ : _____ : _____ : _____ : _____ : _____ | |
| | bad | good |
| 5. On the whole, the article was
-> continues on the next page | _____ : _____ : _____ : _____ : _____ : _____ | |

Finnish version used in the study

Informatiivinen artikkeli:

Arvioi artikkelia vastaamalla seuraaviin väittämiin:

**täysin
eri mieltä**

**täysin
samaa mieltä**

1. Artikkelissa oli paljon itselleni uutta tietoa. _____

2. Artikkelin sisältämä asia oli yleissivistävää, _____
siis tietämisen arvoista asiaa, vaikka se ei olisikaan
1 ukijalle juuri lukuhetkellä ajankohtaista.

3. Artikkelisi tarjosi minulle henkilökohtaisesti _____
hyödyllistä tietoa: informaatiota ja vinkkejä joista
voi olla hyötyä omassa elämässäni.

4. Artikkelin kirjoitustyyli oli hyvin. _____
asiapitoinen

huono

hyvä

5. Mielestäni artikkeli oli _____

Kokemusperäinen artikkeli:

Arvioi artikkelia vastaamalla seuraaviin väittämiin:

**täysin
eri mieltä**

**täysin
samaa mieltä**

1. Artikkelin lukeminen oli rentouttavaa: lukiessa
oli helppo unohtaa hetkeksi omat arjen kiireet ja
uppoutua muihin maailmoihin. _____

2. Lukeminen sai minut miettimään omaa elämääni,
siinä oli kiinnekohtia omiin kokemuksiini. _____

3. Artikkelissa olleet viittaukset aistikokemuksiin –
kuten, “Tiedän miltä tuoksu ilma neljän aikaan
keväätaamuna”, “Riisuuduin alasti ja kroolasin
päätäpahkaa jäärätteiseen Ounasjokeen”, tai
“Tunsin pienen poikani niskassa aurigon tuoksun”,
– lisäsivät lukemisen elämyksellisyyttä. _____

4. Artikkelin tyyli oli hyvin tunnepitoinen. _____

huono

hyvä

5. Mielestäni artikkeli oli _____

Appendix 6. Manipulation check based on order-of-mention measure (pretest).

Order-of-mention * manipulation crosstabulation				
		Manipulation		
		Informational	Experiential	Total
Order of mention	informational satisfaction first	76.9%	66.7%	72%
	experiential satisfaction first			
Total		100%	100%	100%

Pearson Chi-squared = .326 df=1 p = .568

Appendix 7. Measurement scales used to measure arousal and affect: a subset of the Mehrabian and Russell's (1974, 216) PAD (pleasure, arousal, dominance) semantic differential.

Please, indicate **the feeling state that you experienced as you were reading the magazine issue** with the word pairs below. Some of the pairs might seem unusual, but you may have generally felt more one way than the other. So, for each pair, put a check mark to show how you felt most of the time. Put one, and only one check mark between each word pair.

As I was reading the magazine issue, I felt:

calm	_____	_____	_____	_____	_____	_____	_____	excited *
pleased	_____	_____	_____	_____	_____	_____	_____	annoyed #
unsatisfied	_____	_____	_____	_____	_____	_____	_____	satisfied
energetic	_____	_____	_____	_____	_____	_____	_____	dull * #
sluggish	_____	_____	_____	_____	_____	_____	_____	frenzied *
stimulated	_____	_____	_____	_____	_____	_____	_____	relaxed * #
hopeful	_____	_____	_____	_____	_____	_____	_____	despairing #
melancholic	_____	_____	_____	_____	_____	_____	_____	contented
unaroused	_____	_____	_____	_____	_____	_____	_____	aroused *
wide-awake	_____	_____	_____	_____	_____	_____	_____	sleepy * #
relaxed	_____	_____	_____	_____	_____	_____	_____	bored #
unhappy	_____	_____	_____	_____	_____	_____	_____	happy

Items marked with * comprise the arousal scale. The rest of the items comprise the affect scale.

Items marked with # were reverse scored.

In item 'energetic – dull', the word 'energetic' is used to better describe how the item was translated into Finnish. In the original Mehrabian and Russell's scale (1974) this item was 'jittery – dull'.

-> cont. on next page

Finnish version used in the study

Seuraavaksi pyytäisin sinua kuvaamaan **lehden lukemisen aikana kokemaasi tunnetilaa** alla olevien sanaparien avulla. Jotkut sanat saattavat kuulostaa vähän epätavallisilta, merkitse kuitenkin rasti lähemmäksi sitä sanaa joka paremmin kuvaa kokemustasi lehden lukemisen aikana. Merkitse yksi, ja vain yksi rasti kunkin sanaparin välille.

Olin lehden lukemisen aikana:

rauhallinen	_____	innostunut *
hyvilläään	_____	harmistunut #
tyytymätön	_____	tyytyväinen
energinen	_____	vaisu * #
veltto	_____	kiihdyksissä *
vireä	_____	rento * #
toiveikas	_____	epätoivoinen #
alakuloinen	_____	onnellinen #
passiivinen	_____	aktivoitunut *
virkeä	_____	unelias * #
rentoutunut	_____	ikäyystynyt #
surullinen	_____	iloinen

* -merkityt ulottuvuudet muodostavat aktivaatiotason summamittarin (arousal scale).

-merkityt ulottuvuudet koodattiin päinvastaisessa järjestyksessä.

Appendix 8. Rules for dividing data into single cognitive responses.

Definition

One cognitive response is determined based on its meaning. It refers to a coherent thread of thought about some issue.

Sometimes a cognitive response is communicated by one sentence, in other occasions by several sentences, by a part of a sentence, even by a single word.

Specifications guiding coding

- Unconnected comments:

Comments such as – “*What else should I say?*”, “*That’s about it*” – are not separate cognitive responses. Incorporate either into the preceding or into the succeeding cognitive response.

- Evaluative comments:

When the evaluative comment is connected to the preceding or to the succeeding cognitive response, incorporate it into the cognitive response in question. However, in case the evaluative comment is unconnected, it is a separate cognitive response. The following example clarifies the point:

“The slogan makes me think about which fruit juices are actually kept in cold-stores in markets. Yes, the text is well chosen.” (one cognitive response)

“The slogan makes me think about which fruit juices are actually kept in cold-stores in markets. I like the advertisement.” (two cognitive responses)

- Repetition of ad content:

When the respondent simply repeats ad content, for example, reads the text aloud, this is determined as one cognitive response.

Appendix 9. Manipulation check based on order-of-mention measure (main experiment)

Order-of-mention * manipulation crosstabulation				
		Manipulation		
		Informational	Experiential	Total
Order of mention	informational	86.2%	48.3%	67.2%
	satisfaction first			
	experiential	13.8%	51.7%	32.8%
	satisfaction first			
Total		100%	100%	100%
Pearson Chi-squared = 9.471 df=1 p = .002				