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November 1993.

ABSTRACT

The research reported on in this thesis focuses on four aspects of brand-added value (BAV):

1. A theoretical framework for BAV which includes a definition of the BAV-construct, the development of a theoretical framework to show how BAV functions and an elaboration upon factors that may contribute to BAV.
2. The development of an instrument for measuring BAV.
3. The determination and explanation of differences in the magnitude of BAV between product classes.
4. An investigation of the influence of advertising on BAV in an experimental setting.

The BAV-construct is defined and elaborated upon theoretically by using Brunswik's Lens model. In this model, BAV is positioned as the consumer's perceived value of the brand name and its related connotations. The brand name (an extrinsic cue) is thought to be of more influence in the consumer decision-making process when a brand's intrinsic cues are hidden (as is the case for products with predominantly experience cues) than when a brand's intrinsic cues are revealed (as is the case for products with predominantly search cues). It is furthermore hypothesized that for products with predominantly search cues, only information on extrinsic cues may add value to the brand. For products with predominantly experience cues (intrinsic cues are hidden) it is assumed that information on intrinsic cues adds more value to the brand than information on extrinsic cues. In elaborating upon factors that may contribute to BAV, three elements of BAV are distinguished: perceived quality, (immaterial) brand associations and brand name awareness. Whereas intrinsic cues may only contribute to the perceived quality of the brand, extrinsic cues may contribute to the perceived quality of the brand, add associations to the brand and / or increase the brand name awareness of the brand.

BAV is operationalized by determining the difference in a consumer's preference between the brand with, and the brand without its brand name (i.e. BAV = BRAND - BLIND). To determine the reliability and validity of this measurement instrument for BAV, BAV-scores were measured for eight brands of beers and eight brands of computers. Consistency and stability (both aspects of reliability), proved to be satisfactory except for blind

scores of beers. An alternative computation for BAV is given in cases where the blind scores appear not to be reliable. As far as the brand scores are concerned, checks on convergent, content, and concurrent validity proved to be satisfactory. Checks on convergent, concurrent, and face validity of the BAV-scores also proved to be satisfactory.

In determining differences in the magnitude of BAV between product classes, BAV-scores were assessed for six brands in twelve different product classes. The degree to which BAV emerged (positive or negative) was taken as a measure for the magnitude of BAV. The results of this study show that the factor search vs experience cues is of most influence on the magnitude of BAV. This magnitude is higher for products with predominantly experience cues than for products with predominantly search cues. In the second place, the factor functional vs expressive cues influences the magnitude of BAV: the magnitude of BAV is higher for products with predominantly expressive cues than for products with predominantly functional cues.

As far as influencing BAV through advertising is concerned, the results of an experiment showed, that for a search product, information on extrinsic cues (i.e. transformational advertising) contributed more to BAV than information on intrinsic cues (i.e. informational advertising). For an experience product, there were empirical indications that informational advertising contributes more to BAV than transformational advertising. However, further research is however needed to corroborate this finding for products with predominantly experience cues.

In the conclusions of this thesis, it is made clear that from the perspective of branding, the BAV-construct is to be preferred over the constructs 'perceived quality of the brand' and 'attitude towards the brand'. In contrasting BAV with brand equity, it is concluded that BAV is a synonym for brand equity, if, in using the brand equity construct it is looked at from the perspective of the value of a brand to consumers. In concluding on the measurement instrument for BAV, it is acknowledged that this instrument has several advantages over other instruments. In discussing the managerial implications, it is concluded that longitudinal tracking of BAV-scores may serve several managerial purposes and that BAV may possibly serve as a major factor in the marketing track-record to be used in brand valuation. Finally, major areas for future research on brand-added value are given.

CONTENTS

PREFACE

In 1955, Gardner and Levy published the article 'The product and the brand' in which for the first time an attempt was made at distinguishing between a product and a brand. Probably one of the first authors who described marketing insights from the perspective of brands was Stephen King. The opening line of his book 'Developing new brands', clearly stressed the importance of differentiating between a product and a brand: 'What makes companies succeed is not products, but brands' (King, 1973 p.v). In his book, King pointed out that one of the differences between a product and a brand is that *values* may be added to brands. This construct of 'added value', had already been described by Young (1963), although Young still talked about products. In using the construct of added value, most authors showed clearly that these values lie beyond the functional values of brands; for example Jones (1989 p.6) refers to added values as 'psychological values'. In point of fact, for most authors, added values have no reference to the physical product at all. The brand Coca-Cola may serve as an example to illustrate the difference between the functional values and the added (psychological) values of a brand. For Coca-Cola, the functional values may refer to a good-tasting thirst-quencher, whereas the added values may refer to fun and pleasure. Although the term 'added value' has been frequently mentioned in articles and books on branding, to our knowledge, no attempt has ever been made to quantify added value.

At the end of the 1980's, the construct of 'brand equity' penetrated the marketing literature (although the term had already been used by U.S. advertising practitioners in the early 1980's) (Barwise, 1993). Broadly speaking, brand equity stood for the financial value attached to brands by a producer. However, within a short time span, brand equity was also used as a term to express the value of a brand for consumers. In his book 'Managing brand equity', Aaker (1991) was one of the first to elaborate on the construct of brand equity by discussing a number of factors that may contribute to the value of a brand from the point of view of the consumer, and by discussing factors that may contribute to the value of a brand from the point of view of the producer. From about 1988 onward, several studies were published on how to measure brand equity (like Shocker and Weitz, 1988; Aaker and Keller, 1989; Kim and Lehmann, 1990; Kamakura and

Russell, 1993). In these studies, the angle from which perspective brand equity was being investigated (i.e. the value of a brand to consumers or the value of a brand to producers) was not always clear.

In 1987, we started a research project that was originally derived from the construct of added value, but that also took findings of studies on brand equity into account. The central construct in this research project is '*brand*-added value', of which the results are described in this thesis. The construct 'brand-added value' has similarities and dissimilarities with both the constructs 'added value' and 'brand equity'. In figure 1, we have tried to point out how these three constructs relate to one another. Whereas added value concerns non-functional values (i.e. psychological values), brand-added value may be based on both functional *and* psychological values. For example, for Coca-Cola, the brand-added value may be based on both the functional values (i.e. that it is a good tasting thirst-quencher) and the added psychological values (referring to fun and pleasure). So, brand-added value may refer to all possible values a brand may provide. With respect to brand equity, brand-added value corresponds to this construct if, in using brand equity, the value provided to consumers is emphasized. So, in this thesis the focus is mainly on the value a brand may provide to consumers. The value of a brand to producers is partly based on the value that a brand may have in the opinion of consumers; other brand assets (like patents and distribution channel relationships) may also contribute to the value of a brand to producers.

$$\frac{\text{Functional value}}{\textit{Added value}} + \frac{\text{Value of a brand to consumers}}{\text{Value of a brand to producers}} + \frac{\text{Other brand assets}}{\text{Value of a brand to producers}} = \textbf{Brand-added value}$$

Brand equity

Figure 1: The relationship between the constructs 'added value', 'brand-added value' and 'brand equity'.

In this thesis, particular attention is paid to the role of advertising, however, the role of advertising is limited to its influence on brand-added value. In reality, advertising may of course perform different roles from the

one focused on in this thesis (like announcing special offers)[1]. In the research project on brand-added value, the empirical focus has been on three aspects: (1) on how to quantify brand-added value; (2) on detecting differences in brand-added values between product classes; (3) and on influencing brand-added value through advertising. In the current thesis, two empirical studies and one experiment are reported that relate to these three aspects. Below, an outline of the following chapters is given.

An outline of the following chapters

This thesis is divided into three parts. In part I (viz. chapters 1 through 3), the focus is on a theoretical framework in which branding is introduced and in which the construct of brand-added value is elaborated upon. In part II (viz. chapters 4 through 6), two empirical studies and one experiment are described. In part III (viz. chapter 7), the general conclusions of this thesis are drawn and the managerial implications of the research findings of this thesis are discussed.

The first chapter of part one of this thesis starts off with branding, a marketing strategy which a company may use in competing with other companies. In the light of branding, the construct of brand-added value is introduced. Chapter 1 further concentrates on branding itself: the instruments of branding (e.g. advertising), the strategic and financial benefits of branding for the supplier, and how branding may affect consumers. In chapter 2, the characteristics of a branded article are investigated, the construct brand-added value is defined and contrasted with constructs that may overlap with it. In chapter 3, factors that may contribute to brand-added value are discussed, and propositions are formulated that express how each factor may contribute to brand-added value; factors that may explain differences in the sensitivity to brand-added value between product classes are discussed first. Subsequently, all brand-related characteristics that may contribute to brand-added value are elaborated upon (like the intrinsic characteristics of a brand, the price of a brand and the advertising for a brand). At the end of chapter 3, research questions are formulated of which three are addressed empirically in chapters 4, 5 and 6.

1: In elaborating on how advertising works, Young (1963 p.49-73) distinguished five roles for advertising: familiarizing, reminding, spreading news, overcoming inertia, and adding a value not in the product.

In chapter 4 of the second part of this thesis, a measurement instrument for brand-added value is described and a report is given of an empirical study in which the focus is on the reliability and validity of this instrument. In chapter 5, a study is reported in which brand-added value was measured in twelve different product classes. This study aimed at detecting differences between product classes in terms of their sensitivity to brand-added value. In doing so, several factors are discussed that may explain the differences found. In chapter 6, a report is given of a study on the influence of advertising on brand-added value.

In the third part of this thesis (chapter 7), the focus lies on the general conclusions of this thesis. In describing the contribution of this thesis to the body of knowledge relating to brand-added value, the theory on brand-added value is reviewed, and the advantages of using the brand-added value construct and the advantages of using the measurement instrument developed, are discussed. Subsequently, the focus of chapter 7 is on the managerial implications of the research findings of this thesis. Finally, the major areas for future research with respect to brand-added value are highlighted.

PART I

THEORETICAL FRAMEWORK

CHAPTER 1
BRANDING AS A MARKETING STRATEGY

In this chapter, the focus will be mainly on the managerial context of brand-added value, the central construct of this thesis. The rationale behind branding as a marketing strategy will be examined in detail. Section 1.1 gives an introduction to branding as a competitive marketing tool, section 1.2 deals with the benefits of branding and advertising, and in section 1.3 the question of how branding may affect consumers is addressed.

1.1 Competition through branding

Companies have different ways of competing with one another. Competition is a form of action whereby one company tries to realize a larger market share at the cost of the market shares of other companies operating on the same market. Some authors describe competition from a strategic and organizational point of view (e.g., Porter, 1985; Daems and Douma, 1989), while other authors describe the battle for market shares in terms of warfare (e.g., James, 1984; Ries and Trout, 1986). Ries and Trout (1986 p.46) go as far as comparing the battle for market shares with the military battle for ascendancy. When engaging in competition, a company may use different instruments (or weapons) to beat its competitors. In table 1.1, five strategies are listed that a company may use in competing with other companies. Among these five is 'marketing strategy', in which six different instruments are distinguished. In this thesis, the focus is firmly directed towards branding, a marketing strategy that uses a combination of the marketing instruments listed in table 1.1. In branding, a producer labels his product with a brand name and / or a trade mark (hereafter 'brand name' will be referred to as BN). The product then becomes a branded article, which is recognizable for consumers and distinguishable from products of competitors. In the early days of branding, a BN was often used as a guarantee for constant (mechanistic[1]) quality; consumers could learn from experience that a branded article remained the same for a long time (the BN

1: 'Mechanistic quality' views quality as an objective aspect or feature of a thing or event (Holbrook and Corfman, 1985 p.33). See section 2.3, for a further discussion on quality.

served as a means of recognizing a specific brand). Nowadays, branding should not only focus on constant (mechanistic) quality, but also on adding information to the product (mainly through packaging and advertising; see below). Such information should be appealing to certain types of consumers. So, through branding a product, a company may compete with other companies in the same market. In fact, a brand may develop into a sustainable competitive advantage (Aaker, 1989) (Arnold, 1992 p.95-96).

Table 1.1: Five competition strategies based on the key deterrent strategies of James (1984 p.32).

Marketing strategy	: Quality, Distribution, Promotion, Pricing, Franchise, Service.
Production strategy	: Capacity, Utilization, Equipment.
Financial strategy	: Costs, Economics.
Technological strategy	: Innovation, Information.
Managerial strategy	: Acquisitions, Mergers, Alliances.

The discussion so far has concentrated on competition through branding, but if the topic is developed, many questions arise, like: which instruments may be used in branding? May branding be applied to any types of goods or service? What are the benefits of branding? Before answering these questions, let us first focus on the features of branding.

Features of branding

According to Murphy (1992a p.3) branding consists of:

> *the development and maintenance of sets of product attributes and values which are coherent, appropriate, distinctive, protectable and appealing to consumers.*

Murphy describes branding in terms of focusing on (product) *differentiation*[2], which, in our opinion, is a major characteristic of branding. Through branding, a company may distinguish its product from those of its competitors on the basis of material and immaterial characteristics. If consumers perceive a particular brand as different from other brands (in a pos-

2: Porter (1985 p.11 ff) distinguishes two competitive advantages: cost leadership and differentiation.

itive way), the brand has a competitive advantage in terms of consumer demand.

How may a company differentiate its brand from those of its competitors? Two classes of brand cues are relevant here, namely intrinsic and extrinsic brand cues. Szybillo and Jacoby (1974) describe intrinsic cues as:

> *...cues which, if changed, would produce a resultant change in the physical product itself (e.g., flavor and aroma cues for beer)...*

Thus, intrinsic cues refer to the physical product itself, whereas extrinsic cues do *not* refer to the physical product. Extrinsic cues may refer to other physical elements (like packaging), and to non-physical elements (like the BN and the price of the brand). Intrinsic cues may appeal more to consumers on rational (or cognitive) grounds, whereas extrinsic cues may appeal more to consumers on emotional (or affective) grounds (we elaborate further upon this proposition in section 1.3). In many product classes it is difficult to compete merely on intrinsic cues. For example: in 1990, 93 different cigarette brands[3] were sold on the Dutch market; thus making it almost impossible for a company to differentiate its brand merely on intrinsic cues (like taste). What remains then, is differentiation on extrinsic cues (e.g., by building an image around a brand of cigarette, like the Marlboro cowboy image). Thus, if differentiation on intrinsic cues proves very difficult, differentiation on the basis of extrinsic cues may be a solution. There are two reasons why differentiation on the basis of extrinsic cues is so important in a brand strategy (based on Arnold, 1992 p.23):

1. The associations that extrinsic cues may add to the brand are very difficult for competitors to copy.
2. Consumers may get more involved in the associations invoked by these extrinsic cues than in the associations invoked by intrinsic cues.

Especially in saturated markets, differentiation on the basis of extrinsic cues may be the sole source on which a brand can be differentiated from competitive brands.

Thus, branding focuses on differentiation through intrinsic and extrinsic cues. However, for successful branding, information on these intrinsic and

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3: Source: 'Voorlichtingsbureau voor Sigaretten en Shag' (VSS) (information office for cigarettes and tobacco), The Hague. Please note: each brand may comprise different varieties (like filter and non-filter).

extrinsic cues should be communicated to the consumer (often these cues cannot be deduced directly from the brand). It is important to communicate these cues explicitly through, for instance, packaging and advertising. To take a concrete example: beer brand X does not contain any synthetic ingredients (competitive brands do contain synthetic ingredients), and this absence of synthetic ingredients is appealing to consumers. However, in all probability, consumers will not be able to taste the difference between beer brand X and competitive brands. If beer brand X is to be exploited to its best advantage, the producer must clearly communicate the beer's plus points to consumers by means of information on the packaging and through advertising.

Recapitulating, we may state that branding focuses on differentiation (on intrinsic and / or extrinsic cues) and on communicating this differentiation to consumers. In fact, through branding, a manager may attach specific information to the brand. Accordingly, consumers may attach a certain value to this information (in terms of liking, disliking, or indifference), which may for its part result in stronger preferences and buying intentions. So, adding information to a BN may result in a consumer attaching a certain value to this BN, in which this added information may refer to both intrinsic and extrinsic brand cues. Although these added values are by many authors restricted to non-functional values (see Young, 1963 p.69-73; King, 1973 p.9 ff; Jones, 1986 p.28 ff; Franzen, 1988 p.39-40; Jones, 1989 p.6; Murphy, 1992a p.3; Chernatony and McDonald, 1992 p.9 ff), we apply this concept of added values to functional and non-functional values[4]. In this thesis, this phenomenon of added value will be referred to as 'brand-added value' (which from now on we shall abbreviate as BAV).

Instruments used in branding techniques

What instruments may be used in branding a product? We distinguish four basic instruments (see Kotler and Armstrong, 1989 p.248):

1. A distinct name (the 'brand name'), that is recognizable to consumers and can easily be remembered.
2. A mark or a symbol (the 'brand mark' or 'logo'), which may be made out of a combination of letters, figures, colours and pictures.
3. A design for the product and its packaging, which distinguishes the brand from those of its competitors (and that reflects uniqueness).

4: This proposition will be worked out in greater detail in chapter 2 (see also box 2.1).

4. A form of legal protection to ensure that others will not use the BN and or the brand mark, unless given explicit permission to do so (then we call it a 'trade mark')[5].

A fifth (and probably most powerful) instrument of branding is *advertising*. By communicating the existence of a brand, and by adding information to a brand, consumers may be convinced that a brand is able to fulfil their needs and their desires. Advertising may function to increase product differentiation (a main objective of branding), and through advertising a brand may become known on a larger scale than it might have been without advertising. Prior conditions for branding, are a fairly constant price, sufficient distribution, and sufficient shelf space for the brand involved (these conditions should be met to sell the brand to consumers). In box 1.1, a taxonomy of brands is formulated that is based on the distribution coverage and the advertising level of a brand. In subsequent sections and chapters this taxonomy will sometimes be mentioned.

The most salient cue of a brand is the BN. Below, we formulate general criteria for an acceptable BN (based on Collins, 1974 p.354-355; Room, 1991 p.15 ff):

1. The BN must be instantly visual comprehensive, and must be memorable (because of this, short names may be favoured over long names).
2. The BN must be easy to pronounce in all the countries where the brand is marketed.
3. The BN must have favourable associations, and must not have an undesirable meaning in the countries where the brand is marketed ('international appropriateness')[6].
4. The BN must be applicable to products in other product classes, if the manager is intending to extend the BN to other product classes in the future.
5. It must be possible to protect the BN legally.

Relevant for point 4 (see above), is Murphy's BN spectrum. In this spectrum, a BN may range from being 'completely descriptive' (like Vidal Sassoon's Wash & Go), 'associative' or 'suggestive' (like Coca-Cola), to

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5: In the U.K. and other common-law countries, there is little difference between a brand and a trade mark. The reason is that the English courts have ruled that 'nobody has the right to represent his goods as the goods of somebody else' (Fogg, 1989). So, if a brand mark is used in the U.K. it more or less becomes a trade mark.

6: For example, in Portugal, the literal meaning of Nescafé is 'it is not coffee' (Collins, 1974).

'completely free-standing' or 'coined' (like Kodak) (Murphy, 1990 p.80-82; 1992b p.96). One must realize, that especially a 'completely descriptive' BN is more difficult to extend to other product classes. If a manager is intending to use the BN in other product classes in the future, a 'freestanding' or 'coined' BN fits a new brand best.

Box 1.1: A taxonomy of branded articles

For branded articles, a distinction is made between A-, B-, C-, and trade or distributors brands (CEBUCO, 1981; Leeflang and Beukenkamp, 1987 p.22 ff) (the examples given, refer to the Dutch market):

1. **A-brands**: brands with a well known name, a distribution coverage of seventy to eighty percent that are supported by national thematic advertising. Consumers tend to attribute a high quality level to these brands. Examples are: Heineken beer, Pampers diapers and Coca-Cola. However, in our opinion, a well known national advertised brand with a high perceived quality, but with a selective or exclusive distribution, may also be labelled as an A-brand (like Rolex and Rolls Royce).
2. **B-brands**: locally distributed and / or locally advertised brands. Examples are: Hengelo beer, various dairy products (like eggs).
3. **C-brands**: brands for which the responsibility for marketing activities lies with the distributors. Examples may be found in the furniture sector, in which distributors advertise for the brands they sell.

Trade or distributors brands are brands sold by traders (or a combination of traders) with a BN of their own[7]. These brands are also called 'D-brands', 'private-label products', 'distributor-owned brands' (DOB) or 'store brands'. Examples are: Albert Heijn (AH) toothpaste, Super eggs. Trade or distributors brands may be positioned as an A-, B-, or C-brand.

7: In the case of fast-moving consumer goods, DOBs have become a threat for A-, B-, and C-brands during the last decades. The main cause of this threat was due to retailer concentration (see for the Dutch market: NPO, 1979). Due to over-allocation of shelf space and low prices, DOBs took over a substantial part of the market share of B- and C-brands (Peckham, 1983 p.49). In recent years, DOBs have gained additional market share, by attacking A-brands (Liesse, 1993). Besides DOBs, generics (i.e. 'unbranded' products) may also threaten the sales of branded articles (Harris and Strang, 1985).

Applicability of branding

Now that we know what instruments may be used in branding techniques, the question is addressed as to whether all products can be differentiated from each other through branding. Jones (1989 p.5) names three requirements that must be met for successful branding: (1) differentiation of the product should be possible; (2) the product should be widely available to the public; (3) one should be able to add values to the product through advertising. The first and the third requirement both stress product differentiation (the latter only in an immaterial way). In fact, the key question here is whether products are differentiable. Regarding this, Levitt (1980) claims that:

> *There is no such thing as a commodity. All goods and services are differentiable.*

According to Levitt, a 'generic product' may be transformed into an 'expected product' (which represents the customers' minimal purchase conditions). An expected product may for its part be transformed into an 'augmented product'. An augmented product also includes voluntary or unprompted augmentations to the expected product, thus exceeding the expectations of the buyer. An augmented product may finally be transformed into a 'potential product' (including everything that might be done to attract and hold customers). So, according to Levitt (1980) every good and service is differentiable (from a generic - expected - augmented - to a potential product). Following this principle, branding may also be applied to any good or service. Corroboration of Levitt's proposition (that all goods and services are differentiable) is given by Murphy (1990), who gives several examples of successful branding for products, services, and industrial products (like raw materials). However, it should be realized, that in some product classes branding is almost non-existent (like for vegetables and potatoes). This falsifies Levitt's proposition; in fact, branding may be less applicable to some classes of product. We shall return to this topic in chapter 3 and chapter 5.

1.2 Benefits of branding and advertising for the supplier

Branding and advertising may result in two kinds of benefits for the supplier: strategic and financial benefits. In discussing these benefits, we limit our scope to thematic advertising, which focuses mainly on building brand images (and not on communicating temporary price discounts).

Strategic benefits

The strategic benefits of branding imply that the competitive position of the producer is strengthened due to branding. These strategic benefits may refer to both (potential) competitors and retailers. With respect to (potential) competitors, branding and advertising may lead to 'reputation monopolies' (Lambin, 1976 p.95), or as Backman (1967 p.52) states: 'The company that owns the brand has a *monopoly* of its use'. It is often argued, that the main effect of advertising is that it makes consumers *brand loyal* (Franzen and Holzhauer, 1990 p.4 and p.45-48), or that advertising merely influences brand-loyal consumers (Tellis, 1988). Advertising may generate goodwill for the advertised brand, and in so doing make it difficult for new companies to enter the market[8]. What is suggested here, is that due to successful branding and advertising, the strategic position of established companies may become stronger. As a consequence, potential entrants to a market might face a *barrier to entry* (Karakaya and Stahl, 1989)[9]. However, the results of various studies do not corroborate the proposition that advertising creates barriers to entry (for a review on these studies, see Floor and Van Raaij, 1994 p.86-88). Holak and Reddy (1986) even report on a study that seems to indicate that an absence of advertising leads to a higher barrier to entry. Holak and Reddy showed (on the basis of data on the cigarette industry's ad ban in the U.S.A.), that the ban on television advertising lead to *higher* levels of brand-purchase inertia (i.e. a decrease of brand switching behaviour), creating a higher barrier to entry for new entrants to the market. However, the results that Holak and Reddy report, may be explained by the fact that, due to the absence of televised cigarette advertising, *brand loyal* consumers are no longer exposed to brands other than the brand they regularly smoke. Now, if sampling is destructive (as is the case for cigarettes), consumers will stick to their own brand. So, brand-purchase inertia may have arisen here because brand loyal consumers were not informed anymore about other brands. However, for consumers who regularly switch between brands and for former non-smokers, a lower brand-

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8: In some situations a brand has an 'ownership' of a product class (i.e. consumers hold only one BN in their awareness set, like the BN Bacardi for rum). Farquhar (1990) refers to such a situation as 'brand dominance'.

9: According to Schmalensee (1982) and Carpenter and Nakamoto (1989), barriers to entry may also arise due to 'pioneering advantage'. According to Carpenter and Nakamoto (1989) 'consumers appear initially to organize product knowledge around prototypical examples, using them as cognitive referents'. Due to this prototypicality, pioneer brands may gain a superior position in the product class.

purchase inertia may have arisen after the ban on television advertising. The conclusion to be drawn here, is that there is no empirical evidence corroborating the proposition that advertising creates barriers to entry.

Another strategic benefit of branding and advertising may emerge from consumer demand. If a brand appeals to consumers, retailers are forced to stock it. Branding and advertising generate a so-called 'pull effect'; consumers may urge retailers to adopt a specific brand. In such a case, the manufacturer can 'reach over the shoulder of the retailer direct to the consumer' (Murphy, 1990 p.8 and p.67) (see also: Jones, 1986 p.22). So, successful brands may serve as a strategic benefit in the relation between manufacturer and retailer.

Financial benefits

The financial benefits of branding are not usually immediate. The reason for this is that large investments have to be made when the brand is introduced (costs arising mainly from packaging and advertising). However, if sales and market share increase due to advertising, this response is normally a delayed response (a so-called 'carry-over effect'; advertising influencing the sales volume in subsequent periods; see Clarke, 1976; Peles, 1979). Lambin (1976 p.90-100), Little (1979 figure 13), and Erickson (1985) among others, give econometric evidence on the advertising - sales relationship. However, Lambin (1976 p.100) also reports that:

> *Advertising quantitative impact on brand sales is not particularly impressive in absolute value.*

Schmalensee (1972 p.123-124 and p.211 ff) reports that advertising has little influence on sales and market share. However, a subtle distinction should be made here: Lambin and Schmalensee did not consider mediating variables that may influence the advertising - sales relationship. Different message characteristics may, for example, lead to different consequences (sales). On the advertising - sales relationship, Jones (1989) reasons backwards: he reports nineteen cases of *successful* advertising (his research is however of a more qualitative nature). In answering the question 'Does it pay to advertise?', Jones (1989 p.321) concludes:

> *For one thing, successful brands are the exception, not the rule, in the real world.*

So, it seems that advertising may influence sales, but that there are mediating variables that influence the magnitude of the effect of advertising on

sales. Such mediating variables may be: the content of advertising (i.e. message characteristics), the media vehicles used, the media scheduling, and the tuning of advertising to other communication instruments (like sales promotion) (see Albion and Farris, 1981 p.16 ff).

Thus, advertising *may* lead to higher sales. However, advertising also requires investments that may increase the cost price of the brand involved[10]. As a result, the producer faces a lower net margin. However: an increase in sales implies an increase in production, which may consequently lead to economies of scale in production terms. In fact, advertising may - due to economies of scale in production - result in a net reduction of the producer's costs (Steiner, 1973). Jones (1989 p.6) reports that heavily advertised brands (A-brands) have a strong consumer demand, and that - due to this - producers of A-brands may increase their selling price, thus increasing their net margin. If, for the moment, we assume that the final consumer prices are not affected by advertising, then retailers face lower margins. On this subject, Farris and Albion (1980) remark that:

> *...if a manufacturer can generate strong consumer demand through advertising and is able to sell more at higher prices to the retailer, consumer prices will not necessarily reflect the manufacturer's decreased price elasticity. Because retailers still face a situation in which consumers are price sensitive, they will lower their gross margins and prices in order to be more competitive with other retail outlets.*[11]

Steiner (1973) supports the latter argument: more rapid turnover will compensate for retailers' lower margins. Steiner even argues that advertising lowers the consumer price of competing non-advertised brands within the same product class (in order to compete with advertised brands, these non-advertised brands have to lower their prices)[12].

10: Concerning cost price, sometimes companies may be better off without advertising. For example: in the U.S.A. the ban on television advertising (which became effective in 1970) did not decrease the sales of cigarettes (it instead continued to grow), resulting in a greater cost efficiency in terms of advertising (Teel et al., 1979). Holak and Reddy (1986) conclude that the advertising ban made product demand more price sensitive and that it resulted in a higher brand-purchase inertia.

11: Farris and Albion (1980) discriminate two price levels: the factory level (the manufacturer's price for a brand charged to retailers) and the consumer level (the retailer's price for a brand charged to consumers).

12: According to the four stages of the Steiner Model (as summarized in Farris and Albion, 1980), the levels of the factory price, the retail margin, the consumer price

The discussion as to whether A-brands may be sold at premium prices or not, hinges on the topic of price sensitivity. Marketing practitioners often assume that an increase in advertising leads to a decrease in consumer price sensitivity (Krishnamurthi and Raj, 1985). Others (like Stigler, 1961)[13] argue that advertising will lead to an increase in price sensitivity. In summarizing studies (on the advertising - price-sensitivity relationship) Farris and Albion (1980) conclude that:

> *With a single exception, those studies reporting that advertising increases price sensitivity looked at consumer prices and those studies reporting that advertising decreases price sensitivity examined factory prices.*

Wittink (1977), Eskin (1975), and Eskin and Baron (1977) report studies which support the first conclusion. Krishnamurthi and Raj (1985) report on a study in which the subjects (households) were split into two segments: a low and a high price-sensitivity segment. The conclusion for the high price-sensitivity segment is:

> *...that increased advertising enables a brand to have a higher price without losing as much sales as it would in the absence of increased advertising.*

The conclusion for the low price-sensitivity segment is, that price elasticity decreases because of an increase in advertising:

> *...though the magnitude of the decrease is not as great as in the high sensitivity segment.*

The conclusion to be drawn here, is that the influence of advertising on consumer price sensitivity is not unequivocal. Lilien and Kotler (1983 p.661-662) note that the sign and the magnitude of the interaction between these marketing-mix elements seem dependent on the structure of the market and the nature of the advertising (like the content of the message).

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and the market penetration may vary as a function of the stage of the so-called 'advertising life cycle' (these stages are: non-advertised, initial advertising, growth, and maturity). According to the Steiner Model, factory prices tend to increase during the advertising life cycle, retail margins and consumer prices tend to decrease, whereas market penetration tends to increase.

13: According to Stigler (1961), advertising identifies the sellers of particular types of goods for consumers and gives information on prices. So, if a consumer is exposed to advertisements and if he is willing to pay a certain amount for search costs, he is able to compare prices between relatively more retail outlets compared to when advertising is absent.

To summarize, a brand strategy may be a 'guarantee' for future sales and profit. The increase in sales and market share may be regarded as returns on investment (ROI). Of primary interest is that (in the long term) the returns exceed the costs. Also, the cash flows resulting from the product with the BN should - in the long run - be greater than the cash flows resulting from the product without the BN. Shocker and Weitz (1988) refer to this difference in cash flows as 'brand equity'[14].

As mentioned above, large investments have to be made to build and nurture a brand. When we consider that many new brand introductions fail[15], it is clear that a successful brand is a valuable asset to the company. Practical proof of the economic value of brands is given by the facts that:

1. Companies take over (parts of) other companies that possess powerful brands (through mergers and acquisitions).
2. In many industries, transnational and trans-category extensions are applied.
3. 'Has-been' brands are re-introduced.
4. The (financial) magnitude of counterfeiting is high.

Birkin (1989 p.17), Buchan and Brown (1989) and Murphy (1990 p.149-163) give various examples of *mergers* and *acquisitions* in which the extension of a companies' brand portfolio played a central role. In mergers and acquisitions, purchasers often pay more than the book value for a company acquired, because the value of a brand is usually not listed on the balance sheet (Kapferer, 1992 p.183 ff). For example: in April 1988, Nestlé took over Rowntree for £ 2.6 billion (brands involved: Kit Kat, Rolo and Quality Street) (Buchan and Brown, 1989 p.86), whereas the tangible net assets of Rowntree only amounted to around £ 300 million (Murphy, 1990 p.152). Nowadays, managers plea for listing the value of brands on the balance sheet. Rank Hovis McDougall, for example, listed £ 678 million worth of brands on its balance sheet in 1988 (The Economist, 1988, 10 December p.14; Buchan and Brown, 1989 p.85; Murphy, 1990 p.157)[16]. De-

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14: The definition of Shocker and Weitz (1988) focuses only on the financial aspects of brand equity. In section 2.3 the construct brand equity is discussed further and defined in a broader sense than Shocker and Weitz' definition.

15: It has been estimated, that about 5 % of newly-introduced brands become a long-term success (Jones, 1989 p.4; Murphy, 1990 p.20).

16: In 1988, Grand Metropolitan added over £ 500 million worth of brands to its balance sheet (Smirnoff among others) (Phillips, 1988; Brymer and Schiro, 1989 p.126).

termining the economical value of a brand is usually referred to as 'brand valuation'; listing such a value on a balance sheet is referred to as 'brand accounting'. Although in most western countries accounting rules advise against brand accounting (except for some commonwealth countries, like the U.K. and Australia), brand valuation may serve as an aid to price negotiations in mergers and acquisitions. Brand valuation may also serve as a management information aid; on the basis of brand valuation, management may decide whether a brand has already been fully extended, or whether it needs extra financial support (Birkin, 1989).

Other proof of the economic value of brands is to be found in the scope for *transnational* and *trans-category extensions* of the BN. Transnational extension refers to other markets (i.e. other countries) and implies that a successful existing (local) brand is marketed abroad (it becomes 'transnational') (Macrae, 1991; Kapferer, 1992 p.148 ff; Marston, 1992). Brands that are easily extended transnationally are so-called 'brands that travel well' (like Heineken beer). Trans-category extension refers to other product classes (in reality: brand extension) (Kapferer, 1992 p.83 ff). However, besides extending the BN to different product classes, an existing BN may also be used for different product modalities within the same product class. Then we speak of 'line extension' (line extensions are commonly used in the case of automobiles, where alpha-numeric extensions are applied to the same BN). Within the same product class, an existing BN can also be used as a 'corporate endorsement' (Murphy, 1990 p.47) (e.g., for the Dutch market: the '1870' beer brand by Amstel). 'Brand extension' is the term used when an existing BN is used for a product in a different product class (Aaker and Keller, 1990; Murphy, 1990 p.13 and p.110-122). For example: a fashion couturier who introduces a perfume under his own name. Line and brand extension are also called 'family branding', 'product line marketing' (Morein, 1975), or 'franchise extension' (Tauber, 1981). In box 1.2, seven different types of line and brand extension are listed, from which the manager may choose one or more types to extend the brand. Van Raaij and Schoonderbeek (1993) classify line and brand extensions as either based on technical attributes (like extension number 1 in box 1.2), on consequences and benefits (like extension number 2) or on (personal) values and life styles (like extension number 7).

Box 1.2: Seven types of line and brand extensions[17]

1. Offering the same product in a different form (e.g., toilet soap in bar and liquid format).
2. Offering a distinctive taste or ingredient to other products (e.g., a line of food products that contain low levels of edible fats).
3. Offering complementary products (e.g., toothpaste and toothbrushes).
4. Offering extra related services (e.g., a credit card company offering traveller's cheques).
5. Offering one's expertise in another product class (e.g., a producer of photographic equipment selling copying machines).
6. Offering reputational benefits to other products (e.g., a producer of hypo-allergic body deodorants offering hypo-allergic toilet soap) (this type is closely related to the one mentioned under number 2).
7. Offering a designer image or status to other products (e.g., a fashion designer offering fragrances).

According to Tauber (1988) as much as 66 % of successful new brands are nowadays line or brand extensions. Benefits may be accrued from brand extension due to:

- decreased distribution costs (Morein, 1975; Tauber, 1988) (although this may also occur when the distributed products have a different BN);
- shared advertising costs, which may be realized by multiple product advertisements, corporate advertising and line leader advertising (Morein, 1975);
- a reduced risk of failure;
- synergy effects (Knowlton, 1990): the extended brand may profit from the fame and image of the parent brand[18], whereas the introduction of the extended brand may also stimulate the sales of the parent brand (Tauber, 1988; Aaker, 1990).

However, one should realize that brand extensions may also lead to 'brand dilution' (Smith and Dacin, 1991). In the case of brand dilution consumers no longer associate a brand with a particular product. Aaker (1990) warns that the parent brand may also harm the extended brand, and that the extended brand may harm the parent brand. Aaker labels these un-desired effects as, respectively, 'the bad' and 'the ugly' of brand extension. If a

17: Based on Tauber (1988).
18: In line and brand extension, the original brand is usually called the 'parent brand'.

manager perceives these un-desired effects as a real threat, he may also use 'flanker brands' to capture a greater market share[19].

The *re-introduction of 'has-been brands'* has been tried occasionally. According to Saporito (1986), the sales of a brand may decline, but the BN-awareness and the related connotations may remain. Although the consumers' image of such brands may be outdated, the costs of making consumers aware of the BN are saved (making it economically viable to use this strategy)[20]. *The (financial) magnitude of counterfeiting* is also practical proof of the economic value of brands. Murphy (1990 p.134-137) reports, that the U.S. International Trade Commission estimated in 1984, that the losses suffered by American companies due to counterfeiting amounted to between $ 6 and $ 8 billion, annually. In counterfeiting the economic value of a brand is misused usually by companies operating illegally. Counterfeiting involves a financial loss for the legitimate owner of the brand.

1.3 Branding and consumers

In this section, the focus is on how branding may affect consumers. First, the way brands may be represented in the consumer's mind is discussed. Subsequently, the functions advertising may fulfil for consumers is reviewed.

Impressions of brands in the consumers' minds
Advertising may be used by a company to:
1. Make a BN known to consumers on a large scale.
2. Add information to a BN.
The first factor implies, that a BN becomes known to consumers on a larger scale, than it might have been without advertising. When a BN is well-known, consumer awareness is also likely to be high (resulting in so-called 'top-of-mind awareness'[21]). Sometimes a brand is so well-known, that the BN becomes a name for the product class (like 'Walkman', which is in fact

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19: A 'flanker brand' is a term used if a company introduces a product with a new BN in a product class in which they already market a brand (Tauber, 1981).
20: See also: Gordon (1991 p.52-54) on 're-framing a negative brand image'.
21: Some authors use the term 'share-of-mind', which refers to the relative position a brand holds in consumers' minds for a certain product class (see Franzen and Holzhauer, 1990 p.42-43).

a trade mark of the Sony corporation). A major benefit of top-of-mind-awareness is, that the brand involved is most likely to be embodied in the consideration set of the consumer.

By adding information to a BN (the second of the two factors mentioned above), the BN becomes associated with these information elements. This information may not only be based on the contents of advertising, it may also be based on the consumer's experiences with the brand and on information heard 'through the grapevine'. For consumers, the BN then becomes an information bundle: a cluster of knowledge, emotions and experiences stored in their memories. These various information elements are connected with each other and can be triggered by the BN (a cue to retrieve these information elements). This network of information is often called 'schemata' (Bartlett, 1932; referred to in Lachman et al., 1979 p.452 ff; Beijk and Van Raaij, 1989). Advertising may be used to build schemata (for a new brand), or to change information elements in the consumers' minds. It is believed that building or changing already existing schemata, often takes a long time and may be achieved by long-term thematic advertising. Related to schemata are the constructs 'attitude towards the brand' and 'brand image'. Both constructs reflect the impressions consumers hold about a brand; in section 2.3 we elaborate further upon these constructs and discuss their relationship with BAV. There are also authors who emphasize the importance of the brand as a whole; they regard the brand to be a 'Gestalt'. Deriving from Gestalt-psychology, a brand should not be regarded as simply the sum of its individual parts; the whole is believed to be more than the sum of its individual parts (Franzen and Holzhauer, 1987 p.34; Blackett, 1989 p.5 and p.7; Murphy, 1990 p.2-3). To give an example, for most Americans Coca-Cola is not just another carbonated soft drink; it is a major cultural symbol that cannot be replaced by any other carbonated soft drink (Palazzini, 1989 p.56 ff; Pendergrast, 1993 p.354 ff). So, for most Americans, 'Coca-Cola' may function as a Gestalt; a soft drink that cannot be imitated by simply copying each characteristic of the brand. There are also authors who describe brands in terms of personality traits, and refer to this as 'brand personality'. Macrae (1991 p.85 ff) has tried to classify brand personalities; in box 1.3, six brand personalities are given as an illustration. It must be remembered that such a taxonomy is subjective, but that it can be 'useful in understanding the focus of a brand position' (Arnold, 1992 p.100). Furthermore, Franzen and Holzhauer (1988 p.87 ff) emphasize the

role of personal values in positioning a brand. According to these authors, brands may only be successful nowadays if they relate to one (or more) personal values.

Box 1.3: A taxonomy of brand personalities[22]

1. The 'ritual', which refers to 'ceremonies' of use.
2. The 'symbol', which refers to a sign of recognition in the consumer's psycho-social world, like Lacoste's alligator.
3. The 'heritage of good', like Disney as a celebration of family values.
4. The 'aloof snob' which refers to 'haute couture' brands, like Chanel and Rolex.
5. The 'belonging', which refers to brands that are meant for everyone, like Benetton and Swatch.
6. The 'legend', which refers to brands that are 'the original one' in their product class, like Heinz.

The functions of advertising for consumers

One major goal of branding and advertising is to link information to the BN in the consumer's mind. Usually information refers to rational aspects, or to cognitive elements in the consumer's mind. However, in this thesis, *information is not restricted to solely rational aspects*; we also consider the emotional aspects of advertising to be information. Thus, when we state that a producer may add information to his brand through advertising to invoke BAV, we mean *information in the broadest sense* (both rational and emotional aspects)[23]. With rational information, information is meant that may contribute to consumers' cognitive memory elements, whereas with emotional information, information is meant that may contribute to consumers' affective memory elements. One should however consider that the boundary between rational and emotional information is not always clear-cut. Figure 1.2 shows how the intrinsic and extrinsic brand cues may be linked to cognitive and affective information in the consumer's mind. Intrinsic cues may be used as rational information in advertising, whereas

22: Based on Macrae (1991 p.85 ff) (see also: Arnold, 1992 p.100).

23: In practice, many advertisements contain no rational information at all (see section 3.3.5, box 3.4).

extrinsic cues may be used as emotional information in advertising[24]. As already mentioned, advertising information should be clearly linked to the BN, so that the BN becomes a cue that elicits cognitive and affective information aspects in the consumer's mind.

Brand cues		Advertising information		Consumers' memory elements
Intrinsic cues	→	Rational information	→	Cognitive elements
Extrinsic cues	→	Emotional information	→	Affective elements

Figure 1.2: Linking the brand cues (intrinsic vs extrinsic) with consumers' memory elements (cognitive vs affective) through advertising information (rational vs emotional).

Now, what functions may these informational aspects perform for consumers? In general, cognitive and affective elements may help the consumer to decide which brand to buy. One specific function brands may perform, is to introduce '(cognitive) simplicity into a complex world' (Murphy, 1990 p.22). Brands may - in other words - reduce the risk for a consumer, or as Murphy (1990 p.21) states:

> *The brand represents, to the consumer, a credible guarantee of quality and satisfaction at a recognised price.*

In reducing risk, consumers may buy a brand again and again, leading to brand-loyal behaviour[25]. Roselius (1971) reports a study in which brand loyalty and brand image were perceived by consumers as the most favourable risk-relievers.

24: Intrinsic cues may also be used as emotional information in advertising, whereas extrinsic cues may also be used as rational information in advertising (e.g., the price of the brand). However, in our opinion, most intrinsic cues are more suitable for use as rational information, whereas most extrinsic cues are more suitable for use as emotional information.

25: In section 1.2, brand loyalty has already been mentioned as a strategic benefit of branding and advertising from the perspective of the producer (in terms of 'reputation monopolies'). In section 2.3, brand loyalty is examined in more detail.

Besides cognitive benefits, brands may also fulfil affective benefits for consumers. Srinivasan (1987) names four affective benefits: (1) hedonic (pleasure, fun); (2) aesthetic (beauty); (3) emotional (happiness, surprise, poignancy) and (4) symbolic (self-identity, self-exploration, self-expression). The hedonic[26], aesthetic, and emotional benefits mainly refer to intra-personal consumption experiences, whereas the symbolic benefits mainly refer to interpersonal consumption experiences (thus, symbolic benefits may have social functions for consumers). Through buying (and openly consuming) specific brands, a consumer may make clear to others, what kind of person he is, and what kind of person he is *not*[27]. In fact, through buying specific brands, consumers may make clear to which group they want to belong (conforming behaviour), and to which group they do not want to belong (non-conforming behaviour). In conforming behaviour, a person may adjust his buying behaviour to that of a reference group (Venkatesan, 1966; Park and Lessig, 1977). Conforming behaviour may lead - especially in the higher social classes - to so-called 'conspicuous consumption' (Veblen, 1979; Braun and Wicklund, 1989). Consumers may show conforming behaviour due to social pressure. Non-conforming behaviour means a consumer does not adjust his buying behaviour to that of a reference group. Through deviant behaviour he makes clear that he does not want to comply with the opinions of the reference group. Advertising is in fact the pre-eminent medium for expressing these social functions of brand buying behaviour.

To recapitulate, advertising may transfer rational and emotional information to consumers that relate to intrinsic and extrinsic brand cues. For the consumer, rational information may reduce economic risks, whereas emotional information may reduce social risks. On the basis of these informational aspects, consumers may form preferences and show buying intentions for specific brands. Advertising may influence these preferences and buying intentions, by relating relevant information from key attributes to the BN of the product. The BN may then function as a major attribute on which a consumer decides to buy a product. Thus, the value that a BN may add to a product is an important factor in consumer buying-behaviour.

26: For hedonic consumption, see Hirschman and Holbrook (1982).

27: For example, Vitz and Johnston (1965) showed that, for cigarettes, there seems to be a relation between the masculinity of smokers and the masculinity of the image of the smoker's regular cigarette brand.

In this chapter, various aspects of branding have been discussed. The core elements of branding seem to be *differentiation* and *communication*. What is meant by differentiation, is that a brand is materially or immaterially differentiated from competing brands; by communication, that these differential attributes and benefits are clearly linked to the BN in advertising and in other ways of communicating with consumers (like packaging). Accordingly, branding may result in both strategic and financial benefits for the supplier of a brand. In section 1.1, the construct 'brand-added value' (BAV) was briefly discussed. For simplicity's sake it was stated that BAV reflects the value consumers attach to the information that a BN adds to a product. In other words: a brand may have a certain value to consumers. From this perspective (i.e. the value of a brand *to consumers*), the discussion on brands will be pursued further. In chapter 2, the BAV-construct will be defined from the consumer's side. In chapter 3, factors that may contribute to BAV will be discussed.

CHAPTER 2
THE CONSTRUCT 'BRAND-ADDED VALUE'

In chapter 1 it was argued that adding information to a brand may result in consumers attaching brand-added value (BAV) to this brand. In the current chapter the BAV-construct will be defined and further developed[1]. In section 2.1, a distinction is made between brand characteristics and the perception of those characteristics by consumers (by using Brunswik's Lens model). In section 2.2, BAV is defined by positioning it as a perception of certain brand cues. In section 2.3, several constructs that overlap with BAV are discussed (like brand loyalty and brand equity). In chapter 3, several factors that may help to create and maintain BAV are explained.

2.1 Characteristics of a branded article

When examining a branded article, one can sometimes see that the article possesses certain characteristics that cannot always be inferred directly from the article before - and sometimes even after - consuming it. An example of this phenomenon would be canned food products; often only the colour of the food can be deduced from a picture on the can's label. In discussing characteristics of a branded article, one should realize that there is a difference between the characteristics an article possesses, the cues a consumer uses to infer information on these characteristics, and the consumer's valuation of these cues. The Lens model (Brunswik, 1955), is a general model that may be applied to all kinds of stimuli. The Lens model is based on the distinction between characteristics of a stimulus, the cues a subject uses, and the subject's valuation of these cues. Below, the Lens model is introduced and applied to branded articles. Subsequently, the discussion will focus on intrinsic and extrinsic brand cues, and the Lens model will be further elaborated upon for different types of branded articles.

1: In our research BAV is referred to as a construct. Kerlinger (1986 p.26-27) clarifies the difference between concepts and constructs. According to Kerlinger, 'a concept expresses an abstraction formed by generalization from particulars' (like weight, length, energy etc.). And: 'A construct is a concept. It has the added meaning, however, of having been deliberately and consciously invented or adopted for a special purpose'. A construct is generally used in theoretical schemes, and it *may* be defined operationally.

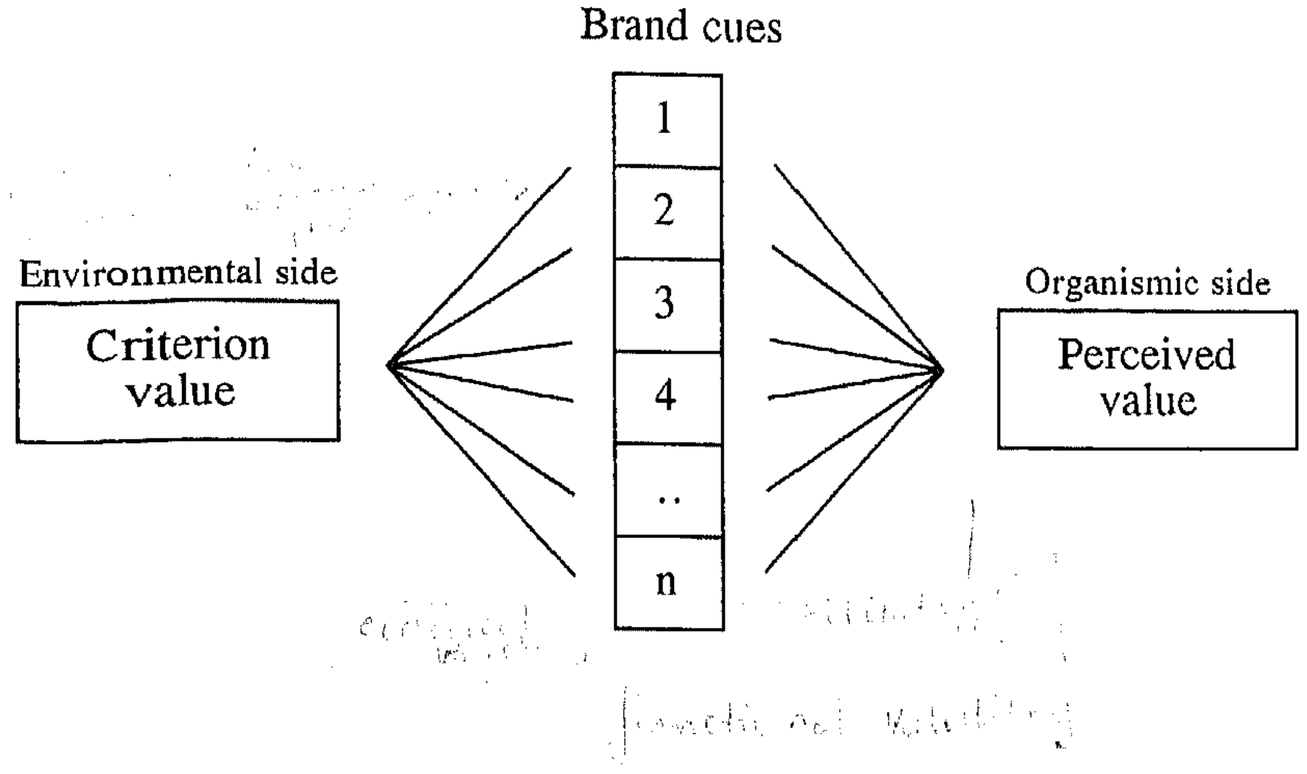

Figure 2.1: The Lens model (Brunswik, 1955) (figure based on Dudycha and Naylor, 1966).

1. The 'ecological validity': the relationships between the brand characteristics (the criterion value) and the brand cues. Correlation coefficients between X_i and Y_e represent these relationships for each brand characteristic separately: $r_{i,e}$.
2. The 'utilization of cues': the relationships between the brand cues and the consumer responses. Correlation coefficients between X_i and Y_s represent these relationships for each brand characteristic separately: $r_{i,s}$.
3. The 'functional validity': the relationship between the brand characteristics (the criterion value) and the consumer response. A correlation coefficient between Y_e and Y_s represents this relationship across all brand characteristics: $r_{Y_eY_s}$.

As outlined above, the Lens model is a general model that may be applied to all kinds of stimuli. The specific application to be looked into next, is the Lens model applied to branded articles. First the intrinsic and extrinsic brand cues will be examined, followed by elaborations upon the Lens model for different types of branded articles.

Intrinsic and extrinsic brand cues

As with all stimuli, the stimulus characteristics of a branded article cannot be objectively perceived by the consumer. Therefore, the consumer uses brand-related cues to infer criterion values. For brand-related cues, in section 1.1 a distinction was made between 'intrinsic' and 'extrinsic' cues (Szybillo and Jacoby, 1974). These intrinsic and extrinsic cues relate to intrinsic and extrinsic brand characteristics. Wind (1982 p.341-342) distinguishes three different (but related) intrinsic cues:

1. Functional cues, that relate to the benefits expected from the brand.
2. Structural cues, that relate to the way functional cues are realized (like size and shape).
3. Aesthetic cues, that create an appealing, visually attractive, and distinct brand (like design and the colours used).

For extrinsic cues, a distinction is made between:

1. Cues that relate directly to the product (like: BN and packaging).
2. Cues that relate to the other marketing-mix variables (price, distribution and communication).

Consumers may judge brands on both intrinsic and extrinsic cues, which relate to intrinsic and extrinsic brand characteristics. However, intrinsic brand cues are not always revealed; for example, for food products, these cues are usually hidden. Jun and Jolibert (1983) hypothesize that consumers use intrinsic cues when attributes for quality judgements are revealed (like with clothing), and that they use extrinsic cues when these attributes are hidden (like with canned goods)[3].

Related to the distinction between revealed and hidden intrinsic cues, is the distinction between search and experience qualities[4] of brands (Nelson, 1970; 1974; 1975; 1978; 1980). Nelson (1974) describes search qualities as:

3: Jun and Jolibert (1983) test their hypothesis for dry batteries (the attribute 'durability' is hidden), envelopes (the attribute 'external appearance' is revealed), and a high-priced electronic lighter (the attributes 'external appearance' and 'eye appeal' are revealed; 'performance' and 'durability' are hidden). Price and country of origin were manipulated as extrinsic cues. The results of their study, corroborate their hypothesis.

4: In his earlier work, Nelson uses the terms search and experience *goods*. Wilde (1980) criticizes Nelson on focusing 'on goods as entire packages of attributes rather than concentrating on the attributes themselves'. Nelson (1980) points out that this was true for his earlier work, but in later work he treated search and experience as a continuous variable.

...qualities of a brand that the consumer can determine by inspection prior to purchase of the brand...

whereas he describes experience qualities as:

...qualities that are not determined prior to purchase...

Darby and Karni (1973) distinguish a third category of qualities: credence qualities. Credence qualities are qualities that a consumer cannot inspect or judge, even after consumption (like the services of a surgeon).

The question that now comes to mind, is, how revealed and hidden intrinsic cues relate to search and experience cues[5]. Search cues were defined as cues that may be inspected by the consumer prior to purchase; thus, these are revealed intrinsic brand cues. Experience cues can only be judged by consumers after consumption; thus, these are hidden intrinsic brand cues. When intrinsic cues are hidden, the consumer is committed to use extrinsic cues in judging the brand. One extrinsic cue is the brand name (BN); thus, the BN should play a more significant role for goods that have predominantly experience cues. This finding is consistent with the theory of Nelson (1970; 1974), who states that *guidance*[6] is stronger for brands that have predominantly experience cues, as compared to brands that have predominantly search cues. In figure 2.2, the relationship between intrinsic cues (hidden vs revealed), and goods that have predominantly search or experience cues is depicted. When intrinsic cues are revealed (i.e. brands that have predominantly search cues), the consumer judges the brand primarily on the basis of these intrinsic cues (hence, the influence of the BN - an extrinsic cue - is low). When intrinsic cues are hidden (i.e. brands that have predominantly experience cues), the consumer can only judge the brand on the basis of extrinsic cues (like the BN). So, in the latter situation, the influence of the BN in judging the brand is expected to be high[7].

After this discussion on intrinsic and extrinsic cues, the time has come to present some elaborations upon the Lens model (both for products that

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5: For reasons of clarity, our scope has been limited to search and experience cues, and from now on the term 'cues' will be used instead of 'qualities'.

6: By guidance, Nelson (1970; 1974) means that a consumer is receptive to opinions of others in his decision-making process. Guidance may - in our opinion - also be conceived as the influence of extrinsic cues (like the BN) on the consumer decision-making process.

7: See Swait et al. (1993) on signalling and consumer choice.

possess predominantly search, and for products that possess predominantly experience cues).

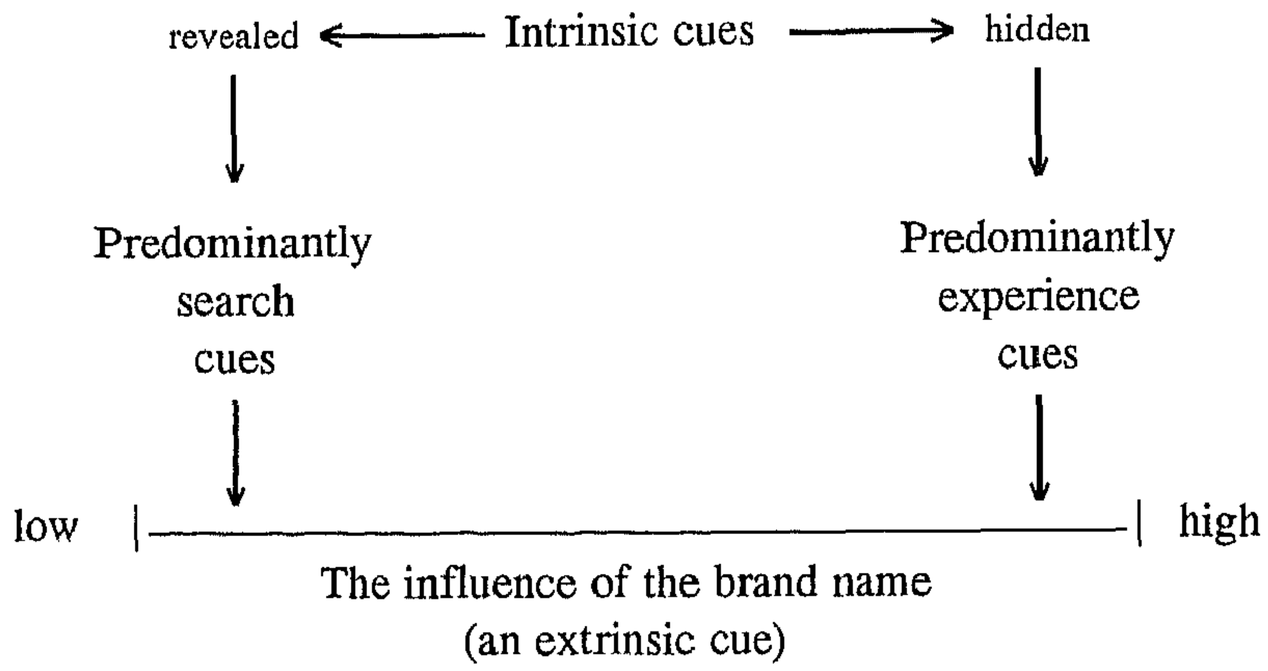


Figure 2.2: The influence of the brand name as dependent on the perceptibility of intrinsic brand cues.

Elaborations upon the Lens model

It was stated above that the influence of the BN is expected to be low in the case of predominantly search cues, whereas the influence of the BN is expected to be high in the case of predominantly experience cues. The BN may be regarded as a stimulus dimension in the hierarchy of cues belonging to the Lens model. So, for products with predominantly experience cues, the position of the BN in this hierarchy is likely to be higher than in the case of products with predominantly search cues. The position the BN holds within the hierarchy of cues may differ as may the *role* of the BN. In elaborating upon the different roles a BN may perform, we applied the 'halo' and the 'summary' construct as described by Han (1989)[8]. Should the BN function as a *halo construct*, it will serve as a cue in influencing beliefs on the brand (structural relationship: BN » beliefs » attitude towards the brand). In the case of the halo construct, the BN invokes little or no belief-related associations in the consumer's mind. So, the brand is primarily judged on its intrinsic cues; the role of the BN is limited to influencing other stimulus dimensions within the hierarchy of cues. Should

8: Han (1989) applies these constructs to 'country image'.

the BN function as a *summary construct*, it may evoke information on attributes in the consumer's mind. In the case of the summary construct, the BN may be regarded as a construct that summarizes beliefs (structural relationship: beliefs » BN » attitude towards the brand). Both the halo and the summary construct, may be applied to products with predominantly search, and to products with predominantly experience cues. However, for products with predominantly experience cues, one can hardly speak of a halo effect of the BN on intrinsic cues (the fact that the intrinsic cues are hidden means these cues cannot be inferred). Therefore, we replaced - in the case of products with predominantly experience cues - the term 'halo' with the term 'holistic'. Should the BN function as a *holistic construct*, the BN is the main (and often only) cue taken into consideration (structural relationship: [beliefs »] BN » attitude towards the brand). Recapitulating, it can be stated that the BN may serve as a halo or as a summary construct for products with predominantly search cues. The BN may serve as a holistic or as a summary construct for products with predominantly experience cues.

If these constructs are applied to the distinction between search and experience cues, four situations arise (see figures 2.3a through 2.3d). In these figures, *only the main relations are shown*; other relations may exist, but these are subordinate in the specific situation. 'Brand name' is incorporated in these figures as a separate extrinsic cue, referring to the BN itself and its related connotations. On the left-hand side of each figure, two stimuli are distinguished: the branded article and advertising (which may also be replaced by the more general term 'marketing communication'). Both stimuli may exert their influence on the perceived value of the branded article (i.e. attitude towards the brand). For predominantly search cues, cues inferred from the branded article are mainly intrinsic. For predominantly experience cues, cues inferred from the branded article are mainly extrinsic. Advertising may aim at adding rational or emotional information to the BN (see also figure 1.2). In these figures, advertising is the only variable that may be manipulated. The four situations in figures 2.3a through 2.3d may be explained as follows[9]:

9: In these four situations, it has been assumed that the BN plays a significant role in the consumer decision-making process (like it does with A-brands). However, if the BN invokes no associations at all in the consumer's mind, the attitude towards the brand will be mainly based on intrinsic cues where predominantly search cues are present, or on (other, besides the BN) extrinsic cues where predominantly experience cues are present.

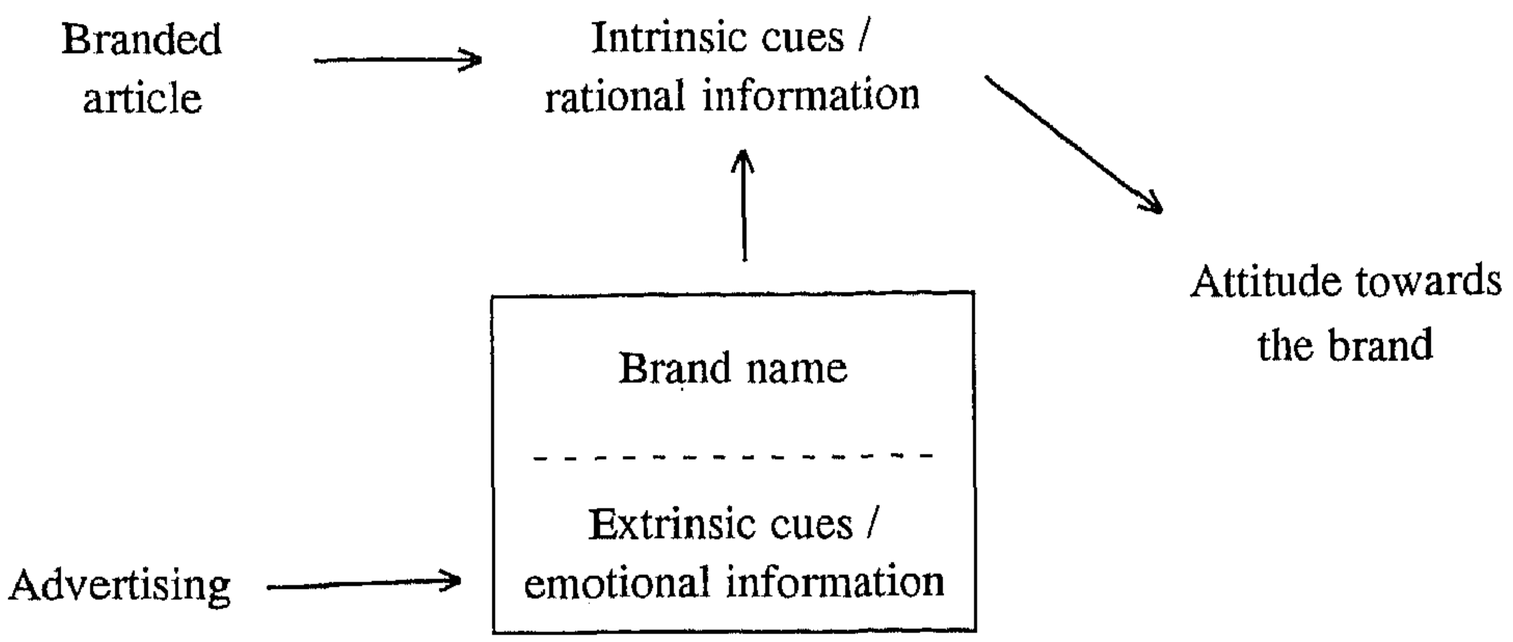


Figure 2.3a: A modified Lens model for products with predominantly *search* cues (intrinsic cues revealed). Advertising aims at linking emotional information to the BN (the BN functions as a *halo* construct). For a full explanation, see text.

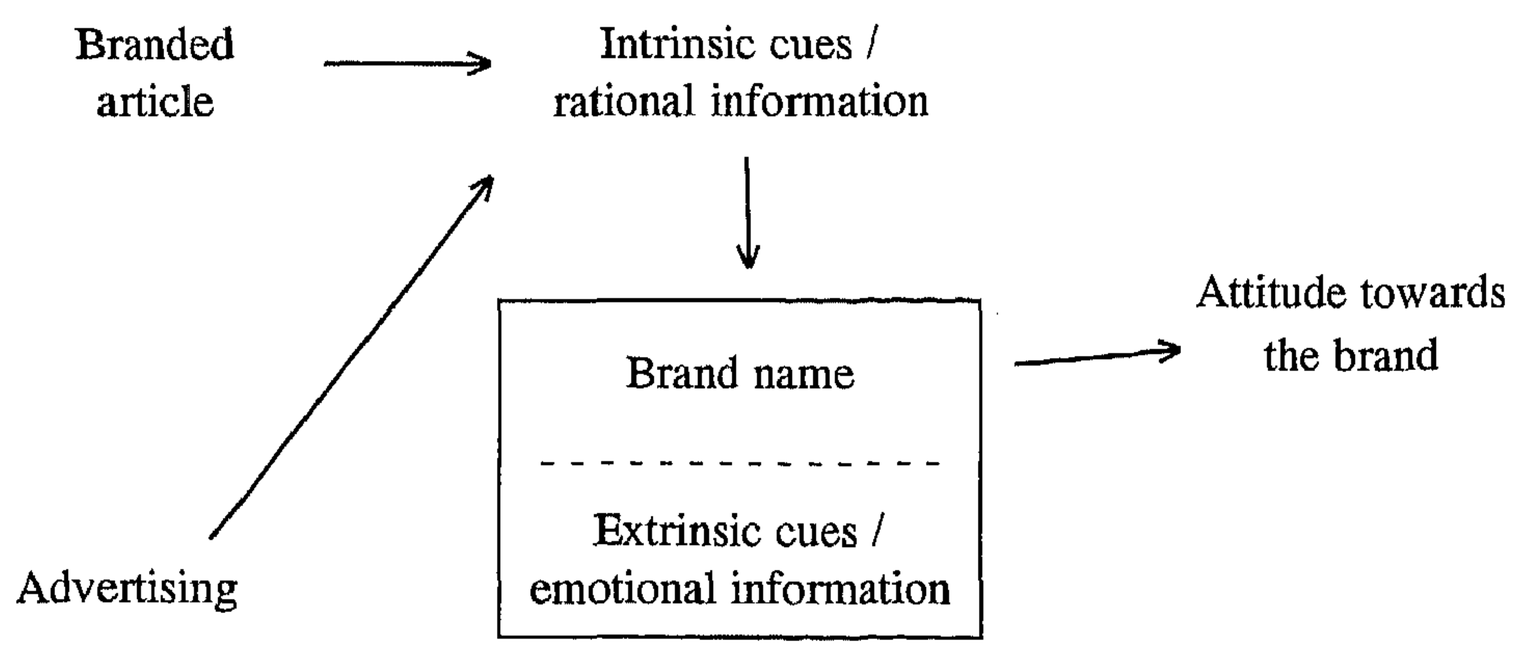


Figure 2.3b: A modified Lens model for products with predominantly *search* cues (intrinsic cues revealed). Advertising aims at linking rational information to the BN (the BN functions as a *summary* construct). For a full explanation, see text.

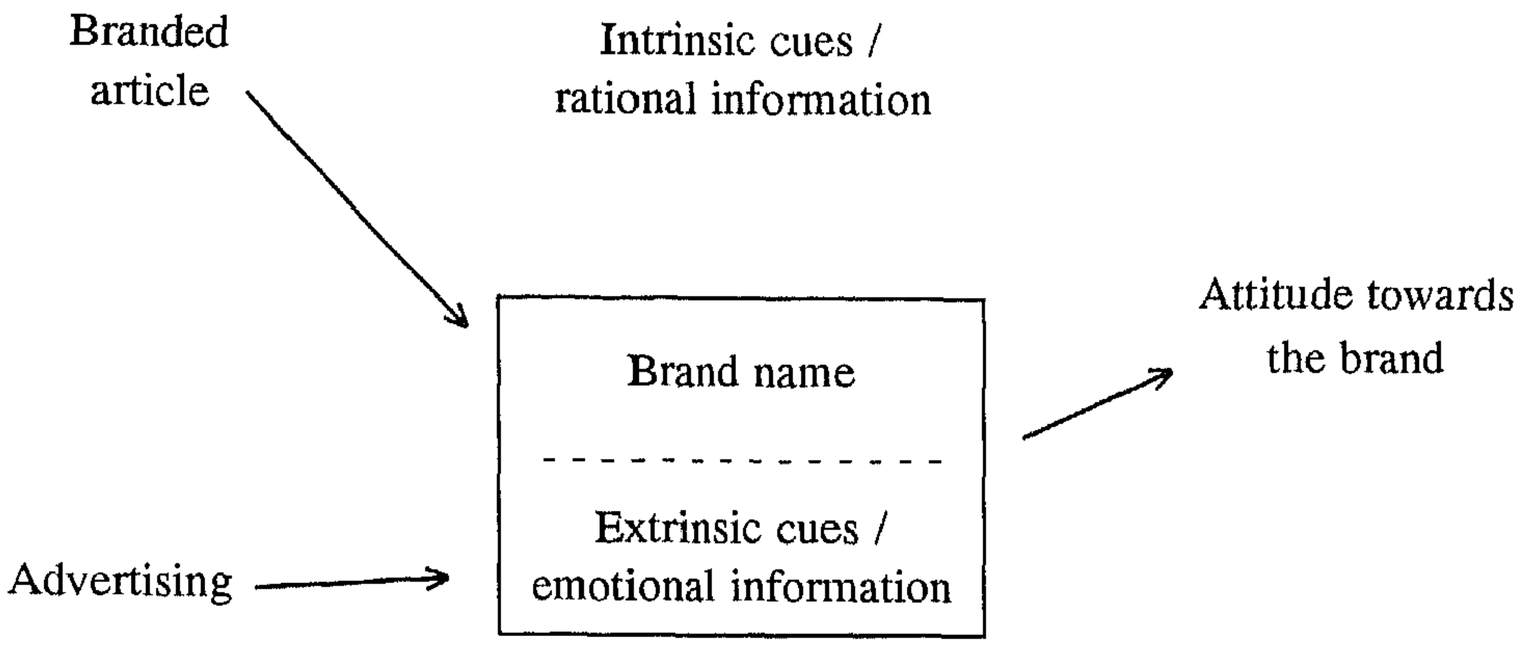


Figure 2.3c: A modified Lens model for products with predominantly *experience* cues (intrinsic cues hidden). Advertising aims at linking emotional information to the BN (the BN functions as a *holistic* construct). For a full explanation, see text.

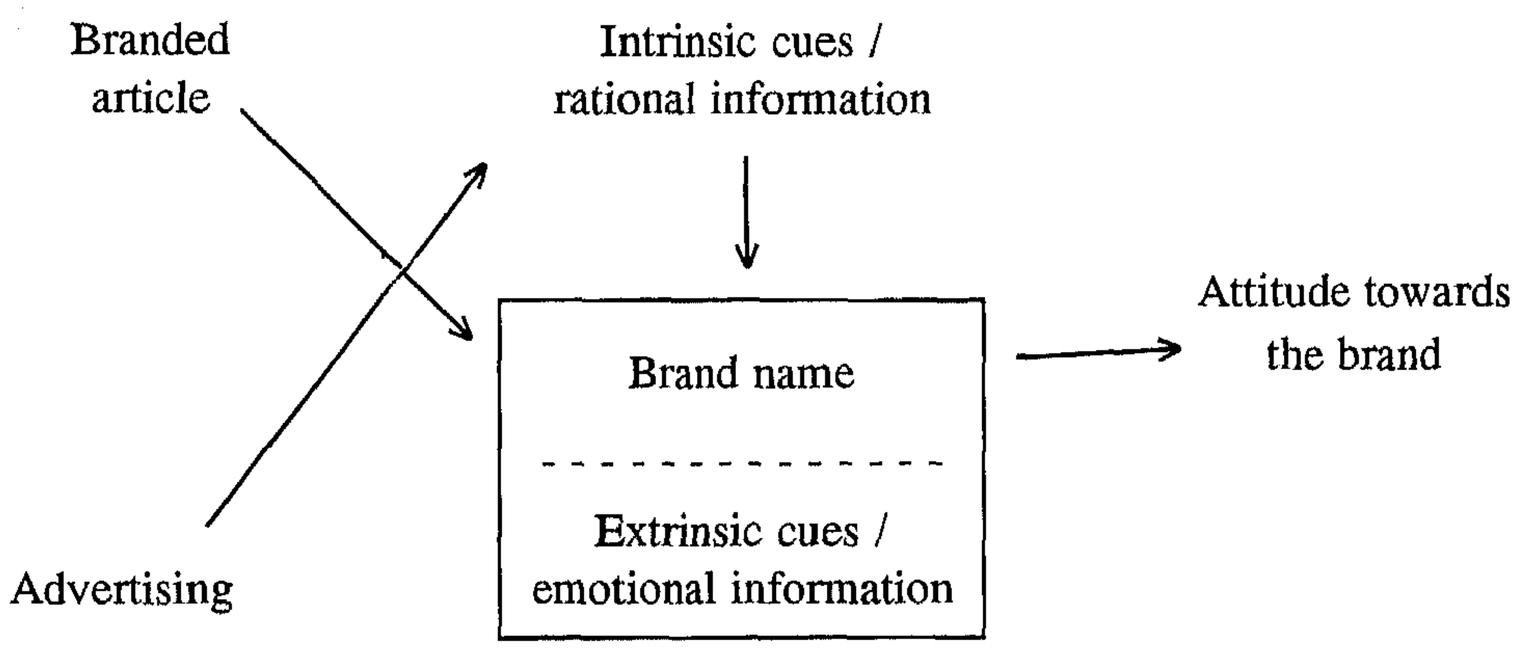


Figure 2.3d: A modified Lens model for products with predominantly *experience* cues (intrinsic cues hidden). Advertising aims at linking rational information to the BN (the BN functions as a *summary* construct). For a full explanation, see text.

1. The BN functions as a halo construct where predominantly search cues are present (see figure 2.3a):
   - the brand is mainly judged on intrinsic cues (i.e. these cues are revealed);
   - advertising aims at making the BN known and at linking emotional information to the BN;
   - the BN functions as a halo construct, influencing judgments on intrinsic cues.

   Examples are: advertisements for a brand of kitchen articles that relate to a specific life style on the part of the consumer.
2. The BN functions as a summary construct where predominantly search cues are present (see figure 2.3b):
   - the brand is mainly judged on intrinsic cues (i.e. these cues are revealed);
   - advertising aims at linking rational information to the BN (i.e. information on intrinsic cues);
   - the BN functions as a summary construct (summarizing the information on intrinsic cues).

   Examples are: advertisements for a brand of kitchen articles that clearly focus on the differential advantages of certain physical attributes.
3. The BN functions as a holistic construct where predominantly experience cues are present (see figure 2.3c):
   - the brand cannot be judged on intrinsic cues (i.e. these cues are hidden), but only on the basis of its extrinsic cues;
   - advertising aims at making the BN known and linking emotional information to the BN;
   - the BN functions as a holistic construct: the BN is the main (and often only) cue taken in consideration.

   Examples are: Heineken beer, Hamlet cigars, and most advertisements for fragrances.
4. The BN functions as a summary construct where predominantly experience cues are present (see figure 2.3d):
   - the brand cannot be judged on intrinsic cues (i.e. these cues are hidden), but only on the basis of its extrinsic cues;
   - advertising aims at linking rational information to the BN (i.e. information on intrinsic cues);
   - the BN functions as a summary construct (summarizing the information on intrinsic cues).

Examples are: most Procter & Gamble advertisements (like advertisements for Always, Clearasil, Pampers and Vidal Sassoon's Wash & Go).

Thus, whether a BN will function as a halo / holistic or as a summary construct, is largely dependent on the information content of advertising. Also, the experiences and the involvement of a consumer with a product class, may influence the role a BN may perform for that consumer (i.e. the BN is more likely to function as a summary construct where high consumer involvement is present). In section 3.3.5, the relation between the information content of advertising and the distinction between predominantly search and experience cues is examined in greater detail. In that section, explicit propositions are formulated on what kind of advertising information suits what kind of product, best. After this application of Brunswik's Lens model to branded articles, these findings will now be used to define BAV.

2.2 Definition of brand-added value

To define the construct BAV, the brand characteristics (i.e. true values) have been decomposed into three *main* levels[10]:

1. The non-distinguishing basic (or generic) product: those characteristics that all articles within a product class have in common with each other.
2. Distinguishing intrinsic characteristics, like distinguishing features, and design.
3. Extrinsic characteristics, like packaging, price and BN (including all connotations related to the BN that may be brought up by advertising; like romanticism for fragrances).

In accordance with Wierenga (1983)[11], these different brand levels may be summarized as can been seen in figure 2.4. In this, the distinguishing intrinsic characteristics and the extrinsic characteristics are perceived as layers around the basic product.

10: Kotler and Armstrong (1989, p.244), for example, distinguish three levels: the core (basic) product, the tangible product (packaging, features, styling, quality, and BN), and the augmented product (installation, after sales service, warranty, delivery, and credit). In chapter 3, the elements of each level will be examined in greater detail.

11: Wierenga (1983) distinguishes between: (1) physical / chemical properties of the product; (2) package size, type, mode of preservation, preprocessing, and built-in services; (3) cultural meaning of the product, package design, brand, advertising theme, price, and outlet type.

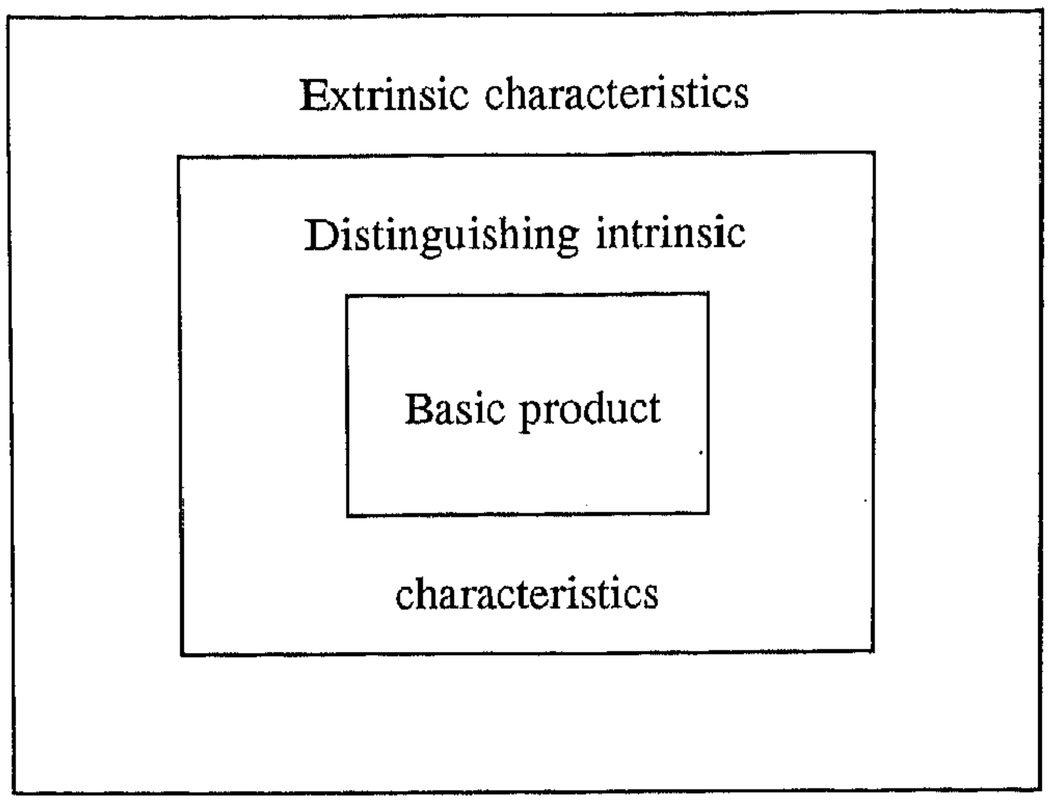


Figure 2.4: The three main levels of brand characteristics.

Based on these three main levels, two *compounded* levels have been defined:

1. The physical product, which consists of the basic product *and* the distinguishing intrinsic characteristics.
2. The (total) branded article, which consists of the basic product, the distinguishing intrinsic characteristics and the extrinsic characteristics.

Each main, and each compounded level, has besides a true value[12] (i.e. the brand characteristics), a perceived value as well. Like in the Lens model, the true values of the product characteristics are linked with the perceived values through the brand cues. In this, the BN is an extrinsic cue, and BAV is part of the *perceived value* of the extrinsic characteristics.

On the basis of the three main - and the two compounded - levels, we formulated stipulative definitions of perceived values. The physical value of a brand is defined as:

> *The consumer's valuation of the basic product and the distinguishing intrinsic characteristics of a branded article.*

12: Although it is difficult to point out what the true values of certain extrinsic characteristics are, the term 'true value' has been adhered to for reasons of simplicity.

The value of the total branded article has been defined as:

> *The consumer's valuation of the basic product, the distinguishing intrinsic characteristics, and the extrinsic characteristics of a branded article (i.e. the total branded article).*

The value of the total branded article corresponds to the attitude towards the brand (see figures 2.3a through 2.3d).

In defining brand-added value, we must consider that BAV is invoked by an extrinsic cue (the BN), and that BAV is part of the extrinsic value[13]. The stipulative definition of BAV sounds as follows:

> *The brand-added value of a branded article is the contribution of the brand name and its related connotations to the consumer's valuation of a (total) branded article.*

Accordingly, the BAV of a brand may be:

- positive: the BN changes the consumer's valuation of the brand in a positive way; or:
- (close to) zero: the BN hardly influences the consumer's valuation of the brand; or even:
- negative: the BN derogates the consumer's valuation of the brand.

For most authors, (brand-) added value is merely based on extrinsic cues (in specific, brand-related connotations) (for references, see section 1.1 on added value). However, in our opinion, BAV may be based on both extrinsic *and* intrinsic cues, whether revealed or hidden[14] (for illustrations see figures 2.3b and 2.3d). Should intrinsic cues be *revealed*, BAV may be based on, for example, the design of the product or its packaging. For example: the BAV of Porsche automobiles may be based on the revealed cue 'design'. BAV may also be based on *hidden* intrinsic cues. This can only happen if information on these cues is clearly linked to the BN (through advertising, for example). In box 2.1, an example is given for a product with predominantly experience cues, in which the BN may invoke information on both intrinsic and extrinsic characteristics.

13: Other cues may also contribute to the extrinsic value (like country of origin and price).

14: Although BAV may be based on revealed brand cues, the influence of BAV on the consumer's preferences will probably be stronger if BAV is based on hidden cues (i.e. the position of the BN within the hierarchy of cues is then probably higher).

Box 2.1: An example of BAV relating to intrinsic and extrinsic cues

Vidal Sassoon's Wash & Go is a brand of shampoo that has been widely advertised on the Dutch market since 1990. The first television commercials showed young people in a changing-room of a sports hall. One of them testified that, when taking a shower, he / she did not have to use two bottles any more (for hair shampoo and hair conditioner), but nowadays just one bottle would suffice: Vidal Sassoon's Wash & Go, a hair conditioner and a shampoo in one. The BAV of Vidal Sassoon's Wash & Go may refer to both intrinsic and extrinsic cues:

1. The BN may evoke information on hidden intrinsic cues in the consumer's mind (that it is a hair conditioner and a shampoo in one).
2. The BN may evoke information on extrinsic cues: Vidal Sassoon's Wash & Go relating to a sporting life (due to the commercial exposing consumers with such a life style).

The BN may elicit information on hidden intrinsic cues in the consumer's mind, if this information is clearly linked to the BN.

Thus, BAV may refer to both intrinsic and extrinsic cues, but it can have no fundamental basis in the basic product. The basic product was, after all, defined as what competitive brands *have in common*. Relevant for this is, how one may determine which brands have the same basic product; such a discussion deals with the definition of the market boundaries of a product class. Relevant here is the strategic analysis of competitive product classes. Criteria to be met for a comprehensive market structure analysis are given by Shocker and Srinivasan (1979), Day (1981), Shocker et al. (1984), and Waarts (1991). By way of conclusion some examples are given of the possible contribution of BAV to the value of the total branded article.

The contribution of BAV to the value of the total branded article

Above, a distinction was made between the physical value and the value of the total branded article. In this, BAV was located as a part of the extrinsic value. In figure 2.5, four examples are given that illustrate the contribution of BAV to the value of the total branded article[15]. In these examples, the

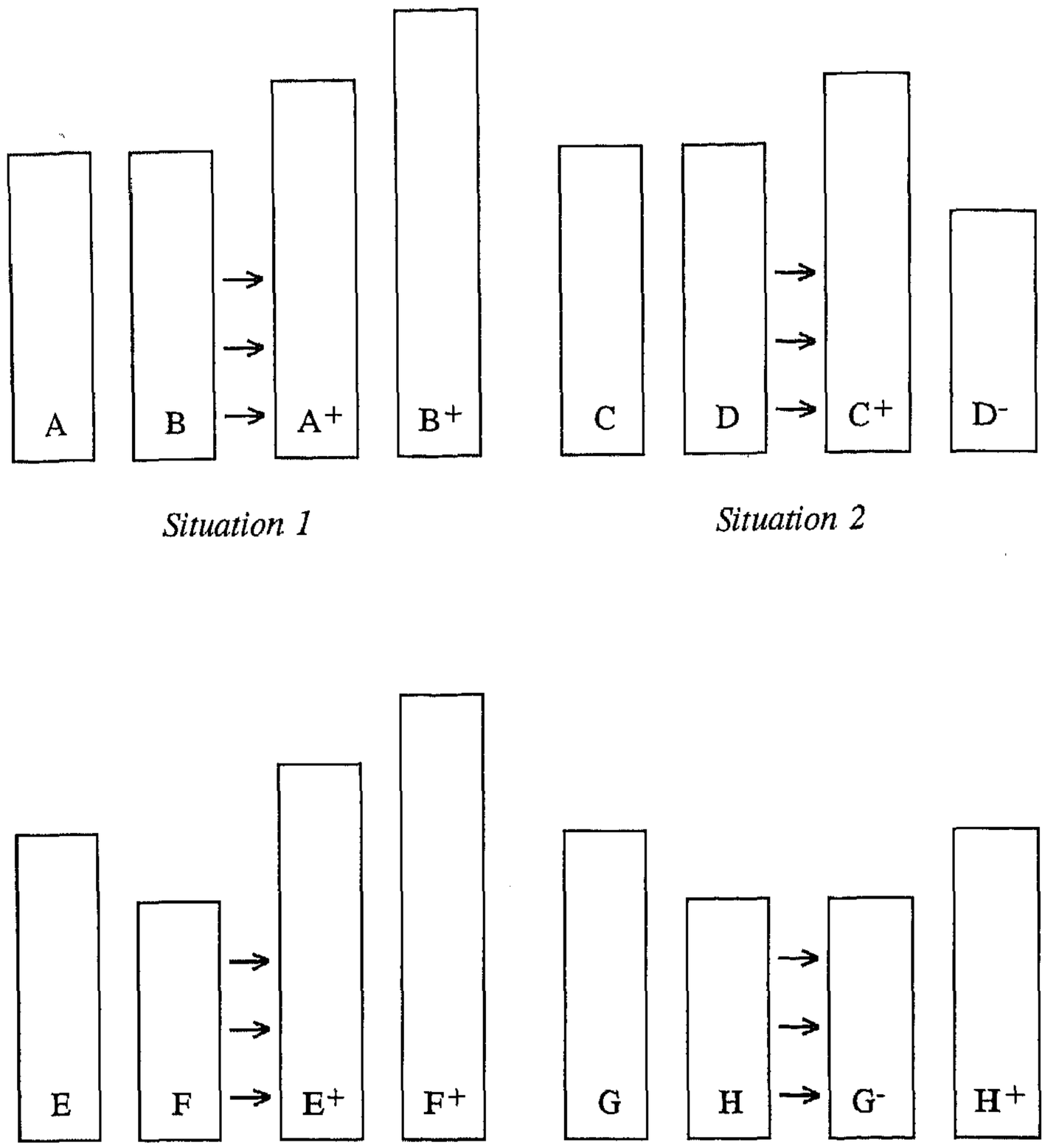
15: For reasons of simplicity, examples have been given for only two competing brands. The physical value of a brand is denoted by a letter (like: A); and the value of the total branded article by the same letter and a plus or a minus sign (respectively like: A^+, in the case of a positive BAV, and like: A^-, in the case of a negative BAV).

physical values of two brands are similar (situation 1 and 2), or the physical values of two brands are dissimilar (situation 3 and 4). In all situations, BAV may cause a discrepancy between the physical value of a brand and the value of the total branded article. The four examples given in figure 2.5 may be explained as follows:

1. The physical values of two brands are the same. The BAV of brand B is greater than the BAV of brand A. As a result, the branded-article value of brand B (i.e. B^+) surpasses the branded-article value of brand A (i.e. A^+).
2. The physical values of two brands are the same. The BAV of brand C is positive, and the BAV of brand D is negative. As a result, the branded-article value of brand C (i.e. C^+) is greater than the branded-article value of brand D (i.e. D^-).
3. The physical value of brand E is greater than the physical value of brand F. The BAV of brand F is greater than the BAV of brand E. As a result, the branded-article value of brand F (i.e. F^+) is greater than the branded-article value of brand E (i.e. E^+).
4. The physical value of brand G is greater than the physical value of brand H. The BAV of brand G is negative, and the BAV of brand H is positive. As a result, the branded-article value of brand H (i.e. H^+) is greater than the branded-article value of brand G (i.e. G^-).

With situations 1 and 2, there is a perceived homogeneity of the physical product. By transforming a product into a branded article in these situations, a producer could move from a market of homogeneous oligopoly to a market of differentiated oligopoly or monopolistic competition. Of course, many variations on these four situations are possible[16]; especially when the number of brands is increased. Now that BAV has been defined, it is time to discuss several constructs that overlap with BAV.

16: It is also possible for the BAV of a brand to be (close to) zero. The value of the total branded article is in such a situation (almost) the same as the physical value of that brand.



Situation 1 *Situation 2*

Situation 3 *Situation 4*

Figure 2.5: Four examples of the contribution of BAV to the value of the total branded article. The height of the bars represent the physical value of the branded article (denoted by a letter), or the value of the total branded article (denoted by a letter and a plus or minus sign). For a further explanation: see text.

2.3 Constructs that overlap with brand-added value

Against the background of our definition of BAV, questions may arise as to what the similarities and dissimilarities are between BAV and constructs like perceived quality of the brand, attitude towards the brand, brand image, brand loyalty, and brand equity. These constructs relate to branding, and may to some extent overlap with BAV.

Perceived quality of the brand

As stated above, with the Lens model, brand characteristics may have a true and a perceived value. The true value of product quality is frequently called *objective quality* (Monroe and Krishnan, 1985) or 'mechanistic quality' (Holbrook and Corfman, 1985 p.33). The true value of quality is, however, difficult to operationalize. Therefore we use the term 'mechanistic quality' instead of 'objective quality' (each operationalization of the true value of quality is, after all, subject to opinions on what this true value of quality exactly is). Regarding mechanistic quality, Garvin (1983; 1987) refers to the reliability and durability of the product as dimensions of quality. Garvin also mentions differences in performance, features ('bells and whistles'), conformance to established standards, serviceability, aesthetics and perceived quality as dimensions of quality. Regarding mechanistic quality, Zeithaml (1988) refers to the technological superiority of the product. *Perceived quality* is the counterpart of mechanistic quality, and is also called 'humanistic quality' (Holbrook and Corfman, 1985 p.33). According to Monroe and Krishnan (1985 p.212), perceived quality is 'the perceived ability of a product to provide satisfaction 'relative' to the available alternatives'. One may notice, that this definition gets near to the value of the total branded article (see section 2.2). In our opinion, perceived quality should be limited to the consumer's valuation of the mechanistic quality of the brand, with mechanistic quality being a part of the physical product[17] (besides mechanistic quality, features and design / style can be distinguished as parts of the physical product). According to Steenkamp (1989 p.100 ff) perceived quality is an 'evaluative relativistic judgment of a consumer about a brand'. This implies that judgments may vary between

17: What may be confusing in this, is that in experiments - using perceived quality as a dependent variable - extrinsic cues are often used as independent variables (like BN, price and store image). Although the influence of extrinsic cues on perceived quality can be examined, perceived quality in our study has been confined to the consumer's valuation of a part of the physical product (that is, the quality part).

consumers, and that it is 'relative to an intended purpose and a set of alternatives' (Aaker, 1991 p.85). In other words: perceived quality may differ dependent on the purpose consumers have in mind in using the brand. Furthermore, the meaning of the perceived quality of one brand is relative to the perceived quality of other brands.

In our opinion, perceived quality of the brand is quite similar to the physical value of a brand (although other factors may contribute to that value, like design / style). Perceived quality of the brand refers to a consumer's judgment of a part of the physical product, which may be inferred from intrinsic and extrinsic brand cues. Although extrinsic cues (like price) may influence the perceived quality of the brand, the construct is confined to a consumer's judgment of intrinsic characteristics. BAV, on the other hand, can be classified as a consumer's judgment of an extrinsic cue: the BN. BAV indicates to which extent the BN adds value to the product, and BAV may refer to both intrinsic and other extrinsic cues.

Recapitulating it can be stated that:
- perceived quality of the brand refers to a consumers evaluation of (a part of) the physical product (i.e. a part of the intrinsic characteristics), which may be influenced by both intrinsic and extrinsic cues.
- BAV, on the other hand, refers to a consumers evaluation of the BN (an extrinsic cue) and may contain information on both intrinsic and other extrinsic cues.

Although there are differences between perceived quality of the brand and BAV, perceived quality of the brand may have a significant influence on BAV. Perceived quality of the brand may be a main element of BAV, besides immaterial brand associations. With respect to BAV, it might even be said that a positive *perceived* quality of the brand is a necessary condition in establishing and maintaining a positive BAV (although other factors may also contribute to BAV).

Attitude towards the brand and brand image

Krech et al. (1982 p.697) define an attitude as:

> *A relatively enduring set of beliefs and associated feelings about an object or situation that predisposes the individual to behave in particular ways toward the object or situation.*

Attitudes may be conceptualized and operationalized as either uni-dimensional or multidimensional constructs. Pieters (1989 p.46) has the following to say on uni-dimensional operationalizations:

> *The measurement instrument can be short and unstructured, and it provides a summary measure of attitude. Such a uni-dimensional approach does not provide much insight in the determinants of attitudes and behavior.*

Attitudes are usually perceived as consisting of three components: a cognitive, an affective and a conative component (knowledge, emotional[18], and behavioural elements, respectively). Pieters (1989 p.37) refers to this conceptualization of attitudes as the 'tripartite attitude model'. The cognitive component is sometimes referred to as 'beliefs' and the affective component as 'evaluative criteria'. Multidimensional measures of attitudes are often based on expectancy-value models. One expectancy-value model frequently used in marketing and psychology, is the attitude model of Ajzen and Fishbein (1980). In formula 2.1, the operationalization of this specific attitude model is given (see also Wierenga, 1983) (here applied to brands).

$$A_j = \sum_{i=1}^{n} b_{ij} \cdot e_i \qquad (2.1)$$

In which: A_j : attitude towards brand j;
b_{ij} : perception or belief regarding attribute i on brand j;
e_i : the evaluation of belief i (preference weight);
n : the total number of attributes.

An expectancy-value model is based on the linear compensatory decision rule (Bettman, 1979 p.180), in which one evaluation is tied to one specific belief. Regarding the content of expectancy-value models, it is to be doubted whether consumers form judgments on brands in such a mathematical way (for a review on such criticism, see Pieters, 1989 p.50). Lastovicka and Bonfield (1982) even question the idea of consumers holding attitudes towards familiar brands. Lastovicka and Bonfield present some empirical studies which show that consumers are less likely to hold attitudes

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18: The terms 'emotion' and 'affect' have been used here interchangeably. However, 'emotion' is normally used for relatively strong reactions (like anger and fear), whereas 'affect' is normally used for relatively weak reactions (i.e. feelings).

towards familiar brands than, for example, towards familiar social issues[19]. One should however realize, that although an expectancy-value model may not be a valid model in the case of brands on descriptive grounds, it may still be a good predictive model in the case of brands.

Of importance for branding and advertising, is the relationship between the attitude a consumer holds towards an advertisement (AAD) and the attitude a consumer holds towards the brand (ABRAND) (i.e. AAD is supposed to influence ABRAND). This relationship is further examined in chapter 3. Before discussing the relationship between ABRAND and BAV, the construct 'brand image' will first be investigated.

Brand image is a construct closely related to ABRAND. Whereas ABRAND is usually operationalized according to formula 2.1, brand image is operationalized in many different ways (for examples, see Reynolds and Gutman, 1984). Brand image is a term frequently used by advertising practitioners (instead of ABRAND). Gardner and Levy (1955) were probably one of the first to use the term 'image' in a marketing context. Almost a decade later, David Ogilvy was one of the first practitioners to emphasize the importance of brand images in advertising (Ogilvy, 1963 p.99 ff).

As stated above, the term 'brand image' is frequently used instead of 'attitude towards the brand'. It is difficult to point out what the differences are between both constructs; sometimes brand image is even operationalized according to formula 2.1 (e.g., Pruyn, 1990). In elaborating upon differences, one should consider that such differences are arbitrary; differences have emerged due to using one of the two constructs in specific situations. Differences between the constructs attitude towards the brand and brand image may be found in two areas:

1. In using the terms 'attitude towards the brand' and 'brand image', the subject usually differs. From the perspective of attitudes, people are normally referred to as the subject (e.g., 'the attitude of consumer A, towards brand Z'). From the perspective of brand images, the brand is normally referred to as the subject (e.g., 'the image of brand Z').
2. Because attitudes are mostly operationalized according to an expectancy-value model, the term 'attitude towards the brand' is often limited to related beliefs and evaluations. Brand image is operationalized in many

19: The studies of Lastovicka and Bonfield (1982) concern brands of bread, toothpaste, toilet paper, and automobiles vs stands on a charter change and abortion.

different ways, varying from multidimensional measures to global (i.e. holistic) measures[20] (see Poiesz, 1989; Pruyn, 1990). Especially in holistic measures, an image may comprise more than beliefs and evaluations that directly relate to the brand (one could label these other factors 'idiosyncratic factors', like individual feelings, impressions, associations, and experiences). Brand image may then refer to all the information in a consumer's brand schema.

Because the differences between the constructs attitude towards the brand and brand image are small, and are mainly due to differences in operationalizations, the line taken is *that both constructs are conceptually identical*. For the sake of simplicity the term 'attitude towards the brand' will be used from now on, which may also refer to brand image.

In elaborating upon the relationship between attitude towards the brand and BAV, the Lens model (figure 2.1) may be of help. When the attitude model (as given in formula 2.1) is applied to the Lens model, the beliefs correspond to the cues (i.e. the stimulus dimensions), whereas the evaluations correspond to the converging processes within the organism[21]. It should be clear from this, that ABRAND falls within the domain of perceived values, and that it may relate to both intrinsic and extrinsic cues. As mentioned before, ABRAND corresponds with the 'value of the total branded article'. BAV is part of the extrinsic value, and is related to those aspects (i.e. beliefs and evaluations) of attitude which are directly linked to the BN. BAV might also be labelled as an 'attitude towards the BN'. The question that now comes to mind, is whether the BAV of a brand is always positive when ABRAND is positive (and vice versa). In our opinion, the actual values (positive vs negative) of ABRAND and BAV need not always to be the same. ABRAND may refer to all possible intrinsic and extrinsic cues, whereas BAV only refers to the BN and its related connotations. The most clear illustrations may be given if the physical value of a brand, and the BAV of that brand, are dis-

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20: For example, the ImagePower scale of Landor Associates (as described by Ryan, 1988) measures brand image quite holistically. The ImagePower score is the average of two measures:
1. Share of mind (SOM): the degree to which people are familiar with the company or brand; and:
2. Esteem: the degree of favourable opinion that people have of the companies and brands that they know.

21: The number of cues, and the relative importance of each cue, may vary between consumers in forming an attitude towards a brand.

similar (i.e. one is negative, while the other is positive). In such a case, the actual values of ABRAND and BAV are most likely to be dissimilar. This can be illustrated by two concrete examples:

1. The attitudes consumers hold towards branded drugs may be negative (as is the case with pain-killers); consumers may dislike using such drugs and regard them as a necessary vice. Nevertheless, a BN may add a certain value to the (disliked) product; consumers may have confidence in certain BNS (like Aspirin or Alka Seltzer). Although the BAV of such brands may be positive, the general attitude consumers hold towards such (a category of) brands may be less positive (if not negative).
2. The physical value of most automobiles will be positive; automobiles help consumers to move themselves from one place to another. Nevertheless, the BAV of a certain brand may be negative (which seems the case in Western Europe with respect to East European cars). Although the general attitude to such brands may be positive (e.g., a good automobile for a low price), the BAV may be negative (probably because such automobiles do not refer to motives of social acceptance or status).

What may be clear from these examples, is that the actual values of ABRAND and BAV are most likely to be dissimilar, if the physical value and the BAV of a brand are dissimilar. However, this is not a necessary condition. A dissimilar value between ABRAND and BAV may also be due to a dissimilar value between BAV and another major extrinsic cue. Mostly, the actual values of ABRAND and BAV will be similar (i.e. both are either positive, or negative); dissimilar values are an exception to the rule.

Brand loyalty

The construct 'brand loyalty' concerns consumer behaviour, in which the same brand is repeatedly bought over a longer time. However, in literature, repeatedly buying the same brand is referred to as repeat purchase behaviour (RPB) or as brand loyalty (BL). Whereas RPB represents a stochastic view of repeat purchases, BL represents a deterministic view of repeat purchases (Jacoby and Chestnut, 1978 p.2 ff). Jacoby and Chestnut (1978 p.80-81) define BL as:

> *(1) the biased (i.e., nonrandom), (2) behavioral response (i.e., purchase), (3) expressed over time, (4) by some decision-making unit, (5) with respect to one or more alternative brands out of a set of such brands, and (6) is a function of psychological (decision-making, evaluative) processes.*

The difference between BL and RPB is found in part 1 and part 6 of this definition; BL is more 'psychologically rooted' than RPB. It may also be stated that a condition for BL, is a positive attitude towards the brand. The satisfaction a consumer experiences after consuming a specific brand, is usually regarded as an antecedent of BL (i.e. the degree of satisfaction a consumer experiences, is expected to influence subsequent brand purchases)[22]. The relationship between BL and BAV will now be addressed.

According to Jacoby and Chestnut (1978 p.117), BL relates to perceived differences between brands (if consumers perceive brands to be different from each other, consumers will show brand-loyal behaviour). In chapter 1, our conclusion was that one of the core aspects of branding is differentiation. BAV may be regarded as a construct that represents to what extent a brand is perceived as different from other brands. Here one may expect, that if a consumer attaches a relatively high BAV to a brand, he should show BL behaviour (after all, a high BAV indicates that the brand is perceived as different). On the other hand one may expect, that if competing brands are perceived as more or less similar to each other, consumers may seek a certain degree of variety in purchasing brands (so-called 'variety seeking behaviour'; McAllister and Pessemier, 1982). However, several factors may intervene in the BAV - BL relationship. If for simplicity's sake BAV is regarded as a BN-related attitude, this point can be clearly illustrated. In empirical research the prediction power of attitudes (i.e. BAV) on behaviour (i.e. BL) is often low (Ajzen and Fishbein, 1977). Several intervening factors may disturb the attitude - behaviour relationship (Van Raaij and Verhallen, 1983). To take an extreme example: a consumer may attach a high BAV to a Porsche automobile, but show no buying behaviour congruent with this disposition because of the high financial costs involved in buying and maintaining such a car. Besides the intervening factors that may disturb the BAV - BL relationship, some consumers are just more price sensitive than brand sensitive. A price-sensitive consumer, with a high income, may attach a high BAV to Porsche automobiles, but may never buy such a car, because he is more sensitive to prices than to BNS[23]. Apart from the factors that may intervene in the BAV - BL relationship, and the price sensitivity of consumers, it can be stated that, in general, consumers will show BL behaviour for brands to which they attach a high BAV.

22: See Newman and Werbel (1973) on major household appliances.
23: Price vs brand sensitivity may be regarded here as a psychological trait.

Brand equity

Another construct related to BAV, is brand equity (which will be termed BE)[24]. The discussion will first centre on the BE-construct itself; subsequently, moving to the relationship between BE and BAV. As was the case with brand image, a uniform definition of BE is lacking. Essentially, BE concerns the *value of a brand*. This value can be defined from two perspectives (Kamakura and Russell, 1993): the value of a brand to consumers, and the value of a brand to the firm. The discussion will trace definitions and operationalizations of BE from these two perspectives. In defining BE, it must be remembered that some authors equate BE to a value of the total brand, while others try to separate the value of the BN from the value of the total brand. Our position with respect to BAV favours the view of the last-mentioned authors.

As far as the value of a brand from the consumer perspective is concerned, the five categories of assets of BE formulated by Aaker (1991 p.16 ff), may help us to make a taxonomy of definitions on BE. These five assets are: BN-awareness, perceived quality, brand associations, brand loyalty, and other proprietary brand assets (like patents and channel relationships). These assets are labelled 'elements' of BE. Definitions of BE that emphasize the value of the brand to consumers are listed in table 2.1a. In our opinion, the definitions can be classified as those stressing either perceived quality (Kamakura and Russell, 1993) or brand associations (Aaker and Keller, 1989; Kim and Lehmann, 1990; Rangaswamy et al., 1993).

The definitions of BE given by Aaker and Keller (1989) and Rangaswamy et al. (1993), emphasize brand associations. This is probably because these definitions were formulated as a basis for studies on brand extensions. According to Kim and Lehmann (1990), BE depends on four factors: advertising exposure, perceived promotion history, previous purchase history, and BE in the previous period. In their model, the relationship between BE and brand choice may be crossed by three current marketing variables: advertising, promotion and price.

24: For an evaluative review of research on BE, see also Barwise (1993).

Table 2.1a: Definitions of BE that stress the value of a brand to consumers (classified to elements of BE).

Perceived quality:
- Brand Value (BV): 'a measure of perceived quality, after discounting for situational factors such as price and promotions' (Kamakura and Russell, 1993).
- Brand Intangible Value (BIV): 'a measure that isolates the component of quality perceptions that cannot be directly attributed to the physical product' (Kamakura and Russell, 1993).
Brand associations:
- 'BE is directly or indirectly based upon brand associations that exist in consumer memory (these associations can be influenced by the firm's marketing and, in particular, branding strategies)' (Aaker and Keller, 1989).
- BE: 'the overall reputation, and the image that the brand name stands for in the minds of the consumers' (Kim and Lehmann, 1990).
- 'BE is a residual value in the form of favorable impressions, attitudinal dispositions, and behavioral predilections among all those who are exposed to the marketing activities related to the brand, including present consumers, potential consumers, as well as channel members and other influencers in the buying process' (Rangaswamy et al., 1993).

Kamakura and Russell (1993) distinguish two measures of BE:

1. Brand value (BV): a measure of perceived quality, after discounting for situational factors such as price and promotions.
2. Brand intangible value (BIV): a measure that isolates the components of quality perceptions that cannot be directly attributed to the physical product.

BV and BIV are derived from the consumer choice model given in formula 2.2. The (total) utility of consumer k to brand j (U_{kj}) is equal to the utility intrinsic to the brand for consumer segment s (α_{sj}), plus the net price after promotional discounts (p_{kj}), plus the influence of short-term advertising (a_{kj}), plus an error component (e_{kj}). In formula 2.2, $ß_s$ stands for the price-sensitivity parameter of segment s, whereas τ_s stands for the advertising-sensitivity parameter of segment s.

$$U_{kj} = \alpha_{sj} + \beta_s p_{kj} + \tau_s a_{kj} + e_{kj} \qquad (2.2)$$

With respect to the intrinsic utility α_{sj}, short-term price and advertising effects are not incorporated in this term, whereas long-term price and advertising effects are incorporated in this term. Kamakura and Russell describe the α_{sj} term as a consumer's value that 'reflects the confluence of consumer perceptions and needs'. The BV for brand j is calculated in accordance with formula 2.3 (f_s stands for the relative size of segment s).

$$BV_j = \Sigma f_s \alpha_{sj} \qquad (2.3)$$

Bv gives insight into the extent to which the brand's perceived quality influences the market share of that brand. Bv is based on a perception of physical features and a distortion of these features due to, for example, claims brought up by long-term advertising. Bv is equal to the sum of a brand's tangible value (BTV) and a brand's intangible value (BIV)[25]: $BV_j = BTV_j + BIV_j$. According to Kamakura and Russell, BTV arises from the physical features of the product, whereas BIV is based on perceptual distortions and other responses to psycho-social cues. Of the two measures given by Kamakura and Russell, BIV resembles BAV most. However, BIV comprises quality perceptions, whereas BAV may comprise more than quality perceptions alone.

Two measures of brand value should be referred to in discussing the value of a brand from the perspective of the consumer. Blackston (1990) and Crimmins (1992) both report on measures of brand value, although they do not explicitly link these measurement instruments to BE. Blackston (1990) reports on a study in which a measure of brand value is used that is based on a brand / price trade-off, using the technique of conjoint measurement. Crimmins (1992) reports on a study in which a method is used that is based on a choice test in which the price of only one brand is varied. Following this method, consumers have to chose a so-called 'target' brand out of a set of brands. In this, one consumer is confronted with the same choice set several times; the only thing that is varied between choice sets is the price of the target brand. Now, if in one choice set, a consumer shows an equal preference for the target brand at $ 1.10 and brand X at $ 1.00, the added

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25: Kamakura and Russell (1993) use Nielsen scanner data to determine BV and performance ratings published by Consumer Reports to isolate BIV.

value of the target brand in relation to brand X is then: ($ 1.10 / $ 1.00 - 1) x 100 % = 10 %. Following this procedure, prices of the target brand are varied in order to determine price differences when indifferent preferences are shown to the target brand and all other brands. Measurement instruments of brand value based on price comparisons will be compared with the measurement instrument for BAV in chapters 5 and 7.

Definitions of BE that stress the value of a brand to the firm, are listed in table 2.1b. These definitions either emphasize the financial perspective (i.e. cash flows) (Brasco, 1988; Shocker and Weitz, 1988; Simon and Sullivan, 1993), the strategic perspective (Mahajan et al., 1989), or the managerial perspective (Aaker, 1991; Keller, 1993).

Table 2.1b: Definitions of BE that stress the value of a brand to the firm.

- 'The value of a brand name is based primarily on its superior ability to generate cash flow, compared to other brands in its market' (Brasco, 1988).
- 'BE is incremental cash flow resulting from the product with the brand name versus that which would result without the brand name' (Shocker and Weitz, 1988).
- 'BE is a function of a brand's current and expected performance characteristics, and a brand's strengths and weaknesses' (Mahajan et al., 1989).
- 'The equity of a brand name is in the value that is added by the name and rewarded in the market with better profit margins or market shares. It can be viewed by customers and channel members as both a financial asset and as a set of favorable associations and behaviors' (Marketing Science Institute, 1989; referred to in Baldinger, 1990).
- 'BE is a set of assets and liabilities linked to a brand, its name and symbol, that add to or distract from the value provided by a product or service to a firm and / or to that firm's customers' (Aaker, 1991 p.15).
- 'The value of the incremental cash flows which accrue to a branded product over and above the cash flows which would result from the sale of a product with no brand name' (Simon and Sullivan, 1993).
- 'The differential effect of brand knowledge on consumer response to the marketing of the brand' (Keller, 1993).

The importance of the value of a brand to the firm may be illustrated by an example given by Rangaswamy et al. (1993):

> *A Coca-Cola executive once commented that if the company were to lose all of its production-related assets in a disaster, the company would have little difficulty in raising enough capital to rebuild its factories. By contrast, however, if all consumers were to have a sudden lapse of memory and forget everything related to Coca-Cola, the company would go out of business. It is precisely the well-established representation for Coca-Cola in the minds of the consumers and the trade that provides equity for the brand name Coke.*

On the basis of this example, it seems clear that the BN (here Coca-Cola or Coke) has an economical value to the firm. The ultimate basis for this value may be found in the minds of consumers. In chapter 1, it was pointed out that branding may lead to certain financial benefits, and that brands may have an economical value. Related to BE is 'brand valuation'; which stands for 'capitalizing the economical value of a brand'. In brand valuation, usually the net present value of expected future incomes is determined (on the basis of a financial track-record), using a 'marketing track-record' of the brand for assessing the risks related to these forecasted future incomes (so as to determine the interest rate). The limiting 'legal' conditions for brand valuation and brand accounting has stopped us from examining brand valuation any further[26].

It has already been pointed out above that definitions of BE either emphasize the value of a brand to the consumer or the value of a brand to the firm. BAV is primarily focused on the value of a brand to consumers (although one may also use such a value as a basis for the value of a brand to the firm). In our opinion, the BAV-construct is similar to the BE-construct that stresses the value of a brand to consumers. However, it should be noted that a consensual definition of BE is lacking, and that, in using the BAV-construct, we made certain explicit choices:

1. BAV was defined from the consumers' point of view, because - as already stated above - the ultimate basis for BE is to be found in the consumers' minds.

26: The reader may find more information on methods of brand valuation in De Smeth (1991) (who describes the Dutch FENO/INTAA method) and in Penrose (1989) (who describes the U.K. INTERBRAND method).

2. In using the BAV-construct, the focus was on separating the value of the BN from the value of the total brand. Not all definitions of BE clearly focus on this separation of the value of the BN; especially those definitions that stress the value of a brand to consumers.

The advantage of the BAV-construct (compared to most definitions and operationalizations of BE), is that BAV is relatively easy to measure in all kinds of product classes (see chapters 4 and 5). BAV may also be a valuable construct if brand valuation is called for (see above). Looking at from this angle, BAV may be a factor determining the marketing track-record of a brand (this proposition is elaborated further upon in section 7.2). This chapter will be rounded off by a summary and conclusions on constructs that overlap with BAV.

Summary and conclusions on constructs that overlap with BAV

In table 2.2, the four constructs discussed above are listed, and their relationship with BAV is briefly described.

Table 2.2: The relationship of four constructs with BAV.

Perceived quality of the brand: refers to a consumer's valuation of (a part of) the physical product which may be inferred from intrinsic and extrinsic cues. BAV refers to a consumer's valuation of the BN (an extrinsic cue) which may contain information on both intrinsic and other extrinsic cues.
Attitude towards the brand (ABRAND)[27]: refers to all intrinsic and extrinsic cues, whereas BAV only refers to those beliefs and evaluations that are directly linked to the BN.
Brand loyalty (BL): refers to psychologically-rooted (brand-loyal) behaviour, which may (among other reasons) be due to BAV. Because of the many factors that may influence behaviour, the direct influence of BAV on BL is limited.
Brand equity (BE): a synonym for BAV. Definitions of BE either stress the value of a brand to consumers, or the value of a brand to the firm; BAV focuses primarily on the value of a brand to consumers.

27: Synonyms for this term are: brand image and value of the total branded article.

The construct 'perceived quality of the brand' corresponds closely to the physical value of the brand. The construct 'attitude towards the brand' corresponds closely to the value of the total branded article. BAV on the other hand explicitly focuses on the influence of the BN. As the empirical studies carried out for this thesis will show, the BN may exert a great influence on the value of the total branded article. Because little is known about the magnitude of the influence of the BN, the BAV-construct may throw some light on this matter. With respect to brand loyalty (BL), the BAV-construct may be used as a predictor in studies on BL (so that the influence of the BN itself can be determined, besides variables that relate to distribution, and the like).

In chapter 3, several factors that may influence, and contribute to, BAV will be examined. In this discussion, three elements of BAV will be considered at greater length: perceived quality, immaterial brand associations and BN-awareness. These three elements are in conformity with Aaker's perspective on BE in terms of the value of a brand to consumers (Aaker, 1991). As far as the element brand loyalty is concerned, this element is more a consequence of BE in terms of the value of a brand to consumers. However, in terms of the value of a brand to a firm, brand loyalty is an element of BE.

CHAPTER 3
FACTORS THAT MAY CONTRIBUTE TO BRAND-ADDED VALUE

In chapter 2, a distinction was made between brand characteristics, brand cues, and perceived values of a branded article. The brand characteristics were divided into three main levels, and two compounded levels (see section 2.2). In this scheme, brand-added value (BAV) was counted as part of the perceived value of the extrinsic characteristics. In the current chapter, BAV will be further elaborated upon, especially the factors that may contribute to the BAV of a brand. In examining this, our presentation will be based on figure 2.4 (working from the inside to the outside): the basic product, the distinguishing intrinsic cues, and the extrinsic cues.

In chapter 2, BAV was seen to have no fundamental basis in the basic product. This was true, because the basic product was defined as what competitive brands have in common (and BAV is based on differentiation). In other words: in a single product class all brands offer the same basic product. This basic product does not contribute to the BAV of any one of the brands *within* that product class. However, at this point, the proposition that BAV can have no fundamental basis in the basic product will have to be amended. This statement only holds if brands are compared *within* one product class. If brands are compared *between* product classes, there may be differences in the degree to which product classes are sensitive to BAV. Thus, the basic product may determine to what degree a *product class* is sensitive to BAV. Below, the influence of the basic product on BAV is recorded as 'differences in the magnitude of BAV between product classes' (section 3.1). From now on, 'the magnitude of brand-added value' will be abbreviated to MBAV. In section 3.1, factors that may explain MBAV will be discussed.

In section 3.2, an outline is given of the conditions that must be met for intrinsic cues to contribute to BAV. In section 3.3, the way extrinsic cues may contribute to BAV is discussed. In that section, the focus is on the brand name (BN) and advertising. Other factors that may contribute to BAV, and those that do not belong to one of the three levels of a branded article, are line and brand extensions. In section 3.4, follows a discussion of the way line and brand extensions may contribute to BAV.

In discussing brand equity (chapter 2), it was concluded that BAV may be based on three 'elements'. These three elements are: the perceived quality of the brand, immaterial brand associations, and BN-awareness (based on Aaker, 1990 p.16 ff). In the current chapter, a clear outline will be given of how each brand cue may contribute to these three elements of BAV. For example: some cues may enhance the perceived quality of the brand (like its high price), while other cues may add associations to the brand (like mood-type advertising). In reality, most cues may influence both the perceived quality and the immaterial brand associations of the brand. In section 3.3.1, the discussion continues on the role of BN-awareness as an element of BAV.

In elaborating upon the factors that may contribute to BAV, the major assertions have been formulated in propositions. These propositions summarize the theory, and are formulated as statements. The propositions are intended for use as hypotheses in future research (so, the propositions still need to be verified, therefore they are not necessarily true). In section 3.5, a recapitulation of the main points in this chapter is given. Section 3.5 finishes with the formulation of some key research questions on BAV (based on the propositions). In chapters 4, 5, and 6 (part II of this thesis), these research questions are addressed empirically.

3.1 Factors that may explain the magnitude of brand-added value within product classes

In chapter 1, the question of whether all products may be differentiated from each other was introduced (under: 'applicability of branding'). That discussion was brought to a close by stating that differences *may* exist between product classes in terms of the applicability (or non-applicability) of branding. This notion is primarily motivated by the fact that in some product classes branding is rarely applied, while in other product classes many brands compete for the favour of the consumer. For example: on a single trip through a (Dutch) supermarket, one can see that there are many brands of beers, but only a few brands of sugar. Bearing in mind the notion just mentioned, the question arises as to whether this is because some product classes are more sensitive to BAV than other product classes (viz. MBAV may differ between product classes), or whether this is because in some product classes brand strategies have just not been applied. If the latter

should be the case, a product class may be sensitive to BAV, but, because no investments have been made in the past, MBAV in that product class is retarded in its development. From the argument above it follows that differences in MBAV between product classes may exist due to:

1. Differences in the potency of BAV between product classes (i.e. due to their nature, some product classes are more sensitive to BAV than other product classes). Examples may be found in the degree of search vs experience cues, which may determine the potency of BAV within a product class (see figure 2.2).
2. Differences in the actualization of BAV between product classes (i.e. in some product classes more effort may have been made to build and nurture BAV, than in other product classes). Here, one may think of all kinds of institutional factors that exert their influence on MBAV.

Below, both factors are discussed and referred to as 'factors that relate to the potency of BAV', and 'factors that relate to the actualization of BAV', respectively. In chapter 5, MBAV is operationalized and differences in MBAV between product classes are analysed.

Factors that relate to the potency of BAV

The factors that relate to the potency of BAV are:

1. Predominantly search vs predominantly experience cues.
2. Predominantly functional vs predominantly expressive cues.
3. The degree of consumer involvement.
4. Durable vs fast-moving consumer goods.
5. The degree to which products are materially differentiable.

Below, each of these factors is examined in the order given. For each factor, a proposition has been formulated which states how that factor relates to MBAV (i.e. proposition 3.1 to 3.5). For each proposition *it is assumed that all other factors that relate to the potency of BAV are held constant* (i.e. ceteris paribus). One should however realize that within each factor exceptions to the rule may be found dependent on the type of consumer, the specific situation and other product-class related factors. An empirical test on the first four factors follows in chapter 5.

In chapter 2, the hypothesis was introduced that the influence of the BN (and thus MBAV) may differ between *products with predominantly search* and *products with predominantly experience cues* (see figure 2.2). On the basis of the discussion in section 2.1, proposition 3.1 has been formulated.

Proposition 3.1: MBAV is lower for products that have predominantly search cues (intrinsic cues are revealed) than for products that have predominantly experience cues (intrinsic cues are hidden).

Differences in *predominantly functional vs predominantly expressive cues* between product classes, may also have an influence on MBAV. The distinction predominantly functional vs predominantly expressive cues indicates that some brand cues refer to (Katz, 1960; Franzen, 1988 p.29 ff; Mittal, 1988; Schweitzer, 1988):

1. The consumer's maximization of gains from the physical product (i.e. 'functional' or 'instrumental' cues) (also called 'utilitarian benefits').
2. Consumption goals in the consumer's psycho-social world (i.e. 'expressive' cues, which are also called 'hedonic' or 'experiential benefits')[1].

If consumers use brands to express their identity, a BN may become a symbol through their (non-) conforming behaviour. Consequently, BAV may play a more significant role for products with predominantly expressive cues. For products with predominantly functional cues, the consumer is mainly concerned with a maximization of gains from the physical product; the role of the BN is expected to be less significant. In proposition 3.2, the relationship between products with predominantly functional vs products with predominantly expressive cues, and MBAV is summarized.

Proposition 3.2: MBAV is lower for products that have predominantly functional cues than for products that have predominantly expressive cues.

Regarding *consumer involvement*[2], one may state that:

1: Engel et al. (1990 p.252 ff) describe utilitarian benefits as 'objective, functional product attributes'. They describe hedonic / experiential benefits as those benefits that 'encompass emotional responses, sensory pleasures, daydreams, and esthetic considerations'.

2: Involvement is a construct originating from social psychology. Krugman (1965; 1966) was one of the first to apply the construct to consumer behaviour. Krugman distinguishes low and high involvement, and uses the 'number of bridging experiences per minute a consumer has', as a criterion for low and high involvement (which is also called 'personal connections'). Nowadays, involvement is usually related to three aspects: a person (i.e. the consumer), an object (i.e. a brand) and a situation. Antil (1984), for example, defines involvement as: 'the level of perceived personal impor-

1. Highly-involved consumers invest more search effort in a purchase decision than little-involved consumers do (Beatty and Smith, 1987).
2. The likelihood of mentally elaborating upon product information is greater for consumers with a high level of involvement than for those with a low level of involvement (Petty et al., 1983; Petty and Cacioppo, 1984).

Because of this, highly-involved consumers probably invest more effort into comparing brands on intrinsic cues, than little-involved consumers do. For highly-involved consumers, the BN functions mainly as a summary construct for both predominantly search and predominantly experience cues (see figure 2.3b and 2.3d, respectively). Accordingly, one may state, that, the more a consumer processes product-related information in a decision-making process, the smaller the (autonomous) influence of a BN. So, a high level of involvement most likely corresponds with a low MBAV (viz. more intensive information processing causes a decrease in MBAV), and a low level of involvement most likely corresponds with a high MBAV. In proposition 3.3, the relationship between consumer involvement and MBAV has been summarized.

Proposition 3.3: MBAV is lower for products that invoke high consumer involvement than for products that invoke low consumer involvement.

The questions that now come to mind are, which product classes may be characterized by a low degree of consumer involvement and, which product classes may be characterized by a high degree of consumer involvement. An antecedent of involvement is perceived (economical and psychological) risk. Some authors even put involvement on a par with perceived risk, like Rossiter and Percy (1987 p.166 ff). In a purchase decision, a high level of perceived risk may lead to a temporal increase in involvement (so-called 'situational' or 'purchase' involvement[3]). The degree of situational involvement may be directly related to the distinction between *durable* and *fast-moving consumer goods*. As perceived risk is generally higher for durable consumer goods (compared to fast-moving consumer goods), involvement is most likely to be higher in the case of durable consumer

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tance and / or interest evoked by a stimulus (or stimuli) within a specific situation'. Petty and Cacioppo (1984) refer to consumer involvement as 'personal relevance'.

3: The counterpart of situational involvement is 'enduring' or 'ego-involvement'.

goods. So, it is to be expected that MBAV will be lower for durable consumer goods, than for fast-moving consumer goods (unless the perceived risk is low for a specific durable consumer good). In proposition 3.4, the relationship between durable vs fast-moving consumer goods and MBAV has been summarized.

Proposition 3.4: MBAV is lower for durable consumer goods than for fast-moving consumer goods (unless the perceived risk is low for a specific durable consumer good).

In chapter 1, it was stated that the core aspect of branding is *differentiation*. One could say that, if it is hard to differentiate between products within a single product class in material terms such a product class has little sensitivity to BAV. In fact, in product classes where brand strategies are almost never applied (like with vegetables, potatoes and meat) it also seems to be hard to establish material product differentiation. The degree to which consumers perceive brands to be (materially) equal, is called 'brand parity'[4]. Accordingly, if the brand parity for a product class is high, MBAV is expected to be low (because BAV is based on differentiation). However, it should be realized that, although the perceived brand parity within a product class may be high, creative solutions may be found in differentiating products. For example, for eggs (which seem difficult to differentiate), differentiation was introduced by feeding chickens with corn-enriched food, and by communicating this differentiation to consumers. The same strategy was applied to meat. In proposition 3.5, the relationship between material differentiation and MBAV has been summarized.

Proposition 3.5: MBAV is lower if it is difficult to apply material differentiation to products within a product class than if it is easy to apply material differentiation to products within a product class.

4: In a study on brand parity among 13 product classes, 52 % of the consumers indicated brand parity for cigarettes whereas 76 % of the consumers indicated brand parity for credit cards. Brand parity ranged from cigarettes (lowest), beer, coffee, shampoo, tv sets, personal computers, airlines, soap bars, cola beverages, snacks, dry soup, paper towels, to credit cards (highest). Source: 'Focus: a world of brand parity', report published by BBDO Worldwide (1988), and referred to in Franzen and Holzhauer (1989 p.72-74) and Aaker (1991 p.10).

What becomes clear from this elaboration upon the factors that relate to the potency of BAV, is that these factors may influence MBAV for a product class. However, it is difficult to point out what the hierarchy of these factors is. On theoretical grounds, the distinction between predominantly search vs predominantly experience cues may explain possible differences in MBAV between product classes, best. However, Riezebos and Pruyn (1991) report in a Delphi study (which concerns marketing practitioners' points of view on BAV), that the degree of consumer involvement, and the distinction between predominantly functional vs predominantly expressive cues, are - according to these practitioners - the most salient factors in explaining differences in MBAV between product classes. What may be even more complicating in assessing the influence of these factors on MBAV, is the fact that certain factors may combine or interact (as is the case with automobiles, that can be characterized as durable consumer goods with predominantly experience and predominantly expressive cues). Combinations of these factors may obscure a univocal interpretation of differences in MBAV between product classes.

Factors that relate to the actualization of BAV

Factors that relate to the actualization of BAV may also influence MBAV within a product class. Two factors are relevant here:

1. The concentration of supply within the market (i.e. the distribution of market shares).
2. The vividness of competition within the market.

The first factor can be illustrated in a monopolistic situation (i.e. a high concentration of supply). In a monopoly there is no competition; thus, branding is not necessary. However, if a monopolistic situation exists within a product class, it does not mean that such a product class is not sensitive to BAV. MBAV within that product class may be retarded, because in the past no investments were made that might have contributed to BAV. The second factor can be illustrated in an oligopolistic situation. In certain markets a status quo policy regarding competition may exist. In such a situation, companies may be economically better off by *not* investing in branding and advertising (see chapter 1, footnote 10 on the 'televised cigarette advertising ban'; Teel et al., 1979). Again, such product classes *may* be sensitive to BAV, but currently BAV does not play a significant role because of a lack of interest in branding. However, companies in both monopolistic and oligopolistic markets should consider that, if it is easy for (aggressive)

newcomers to enter the market, it might be better to adopt a brand strategy long before such newcomers gain a substantial market share. Other factors that may inhibit the vividness of competition within a market, are laws and branch-of-industry-related rules. Examples are advertising bans on cigarettes, or the fact that general practitioners are not allowed to advertise (at least, on the Dutch market). Thus, specific laws and rules may inhibit MBAV. In proposition 3.6, the influence of the competitive factors within the product class on MBAV are summarized.

Proposition 3.6: MBAV is lower if the concentration of supply within a market is high and / or the vividness of competition within a market is low than if the concentration of supply within a market is low and / or the vividness of competition within a market is high.

In section 3.5, the problem of product class related factors is translated into a research question, that is addressed empirically in chapter 5. Up to now, the focus has been on factors that determine possible differences in MBAV *between* product classes. In section 3.2 and 3.3, the focus is on factors that may contribute to BAV *within* product classes. So, now the discussion revolves around factors that relate to individual brands. Our first consideration is the way intrinsic cues may contribute to BAV (section 3.2), followed by an elaboration upon the way extrinsic cues may contribute to BAV (section 3.3).

3.2 The contribution of intrinsic cues to brand-added value

Below, three different ways in which distinguishing intrinsic cues may influence BAV are introduced, namely: the direct way, the indirect way and the interaction of these cues with extrinsic cues.

First, intrinsic cues may affect BAV *directly*. If this is the case, the degree of search vs experience cues may moderate this relationship. For products with predominantly *search* cues, the BN is of minor importance, because these products are mainly judged on revealed intrinsic cues. Therefore, intrinsic cues cannot usually function as a source of BAV. For products with predominantly *experience* cues, consumers have to rely mainly on extrinsic

ıes[5], because intrinsic cues are hidden. As a consequence, the direct influ-
ıce of the intrinsic cues on BAV is small, and BAV relies mainly on extrin-
c cues. For products with predominantly experience cues, brand discrimi-
ation tests illustrate the weak direct influence of intrinsic cues on BAV. In
ox 3.1, examples of brand discrimination tests are given for beers, cola
everages, and cigarettes. In such tests, it appears to be very difficult for
onsumers to recognize a food product on gustatory and olfactory sensa-
ons alone (i.e. in a blind test), although these brands may all have a dif-
rent BAV. Then the source of BAV must lie mainly in extrinsic cues[6]. It
ıay be concluded from this, that the direct influence of intrinsic cues on
AV is limited. However, a threshold value of intrinsic cues may be re-
uired, to make a positive BAV possible. In other words: below a certain
ıreshold, intrinsic cues may detract from BAV.

lthough the direct influence of intrinsic cues on BAV seems limited, intrin-
c cues may affect BAV *indirectly*. When information on intrinsic cues is
dded to the brand through packaging or advertising, such information may
ontribute to BAV. This indirect influence on BAV has already been depicted
ı figure 2.3b (for products with predominantly search cues), and figure
.3d (for products with predominantly experience cues) (see also box 2.1,
or an example on predominantly experience cues). These figures show that
ıtrinsic cues may contribute to BAV indirectly, if (rational) information on
ıese cues is clearly linked to the BN (i.e. intrinsic cues are used as extrinsic
ues). If this information is appealing to consumers, they may attach a
igher value to the brand.

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5 Nelson (1974) and Milgrom and Roberts (1986) state, for example, that the level of advertising (and price) may signal the height of product quality where predominantly experience cues are concerned. The principle that lurks behind this idea is, that high quality will lead to more repeat purchasing, and therefore to higher turnover levels. A higher turnover will most probably lead to a larger advertising budget. By turning the principle around, frequently advertised brands are perceived as being of high quality.

6 However, it must be noted that the ability to discriminate brands in an experiment (in the case of predominantly experience cues) may depend on:
1. The brands used in the experiment: brands that are differentiated for peculiar features may be more easily recognized (like mentholated cigarettes).
2. The degree of involvement of the subjects (subjects showing high levels of involvement are expected to discriminate better between brands, than subjects showing low levels of involvement).

Box 3.1: Brand discrimination of predominantly experience goods

Beers

Allison and Uhl (1964) conclude that regular beer drinkers were not able to distinguish between various brands of beers in a blind test, nor were they able to recognize the brand they regularly drank. According to Jacoby et al. (1971), students (all regular beer drinkers) *seem* able to distinguish between different brands of beers; the results suggest only a weak discriminatory ability.

Cola beverages

Pronko and Bowles (1948) find in blind tests, that more than two thirds of the subjects mis-identify cola beverages (the subjects tended to choose more familiar BNS). Bowles and Pronko (1948) report similar results, and conclude that correct identification does not differ significantly from chance expectancy. Pronko and Bowles (1949) show that a familiar BN is chosen if subjects are also tasting less well-known colas (see also: Pronko and Herman, 1950). However, Prothro (1953) does find differences in a blind identification test between American colas (Coca-Cola and Pepsi-Cola) and a Lebanese cola (subjects were students from Beirut). Thumin (1962) uses the method of paired comparisons to test whether consumers are able to identify cola beverages. On the basis of the chi-square statistic, he concludes that certain colas can be identified by taste. When we compute the percentage of mis-identified colas on the basis of Thumin's data, the value lies between 55 and 61 % (on the basis of chance this value would be 66 %). Lane et al. (1975) conclude on the basis of a paired comparison test, that subjects are able to identify colas.

Cigarettes

Husband and Godfrey (1934) report on an experiment in which they conclude that subjects are not able to identify their own brand of cigarette. Percentages of mis-identification vary from 59 to 83 %[7]; however, their findings have not been statistically tested. Ramond et al. (1950) report a study in which the percentage of mis-identified cigarettes amounted to 55½ %; however, 73 % of the subjects were able to identify their own brand. Littman and Manning (1954) report similar results.

7: For one brand this was actually 24 %. This brand however was a mentholated cigarette.

Besides the indirect influence of intrinsic cues on BAV, it seems that intrinsic cues may also *interact* with extrinsic cues in influencing BAV. An experiment reported by Jacoby et al. (1971) may serve as an illustration in this matter. In this experiment, the price and BN of three beers were manipulated (levels: absent or present). Besides price and BN, the composition differences of these beers were manipulated too:

1. Composition differences were present (i.e. subjects judged three physically different beers). Or:
2. Composition differences were absent (i.e. subjects judged the same beer with different labels).

Jacoby et al. found that:

> *...there was substantially greater variability in quality ratings when composition differences were allowed to vary...*

If composition differences were present, subjects ascribed a higher perceived quality to a brand than when composition differences were absent. In other words: the composition differences facilitated the effect of the BN. What we may learn from this experiment is, that, although consumers may have difficulties in detecting differences between beers on taste alone, the noticeability of these differences may be facilitated by the BN. Thus, the BAV of a brand may be enhanced, due to an interaction effect between the BN and intrinsic cues. In propositions 3.7a through 3.7c, the influence of intrinsic cues on BAV is summarized.

Proposition 3.7a: Intrinsic cues do not usually contribute to BAV in a direct way. However, a threshold value is required for intrinsic cues to make a positive BAV possible.
Proposition 3.7b: Intrinsic cues may contribute to BAV in an indirect way, by clearly linking rational information on these cues to the BN.
Proposition 3.7c: Intrinsic cues may contribute to BAV through interaction with certain extrinsic cues (like the BN).

Although the direct influence of intrinsic cues on BAV seems to be limited, if disregarded these factors may harm the branded article! Thus, a brand should not perform worse on intrinsic cues than competing brands. In essence, the intrinsic cues may influence the perceived quality of the brand (i.e. one of the three elements of BAV). Now, let us turn to the way extrinsic cues may contribute to BAV.

3.3 The contribution of extrinsic cues to brand-added value

In this section, the focus is on the way extrinsic cues may contribute to the BAV of a brand. As was made clear in chapter 2, our assumption is that extrinsic cues are of more influence on BAV for products with predominantly experience cues than for products with predominantly search cues. In this, one should also realize that in most cases extrinsic cues can more easily be changed than intrinsic cues (especially in the case of a brand already in existence). Among the extrinsic cues are the BN and advertising, to which special attention will be paid. This section starts by elaborating upon the ways the BN may contribute to BAV (section 3.3.1). Subsequently, the discussion moves to product-related cues[8] (section 3.3.2), the price of the brand (section 3.3.3), the distribution of the brand (section 3.3.4), and the way advertising may contribute to BAV (section 3.3.5).

Before reviewing these extrinsic cues, the reader is reminded once again of two elements of BAV: the perceived quality and the immaterial brand associations of the brand. Whereas intrinsic cues may solely contribute to the perceived quality of the brand, extrinsic cues may contribute to both the perceived quality and the immaterial brand associations of the brand. In discussing the extrinsic cues, a formulation is given of how each cue may contribute to BAV (i.e. through influencing the perceived quality of the brand, or by adding immaterial associations to the brand). In section 3.3.1, BN-awareness as an element of BAV is discussed separately.

3.3.1 The role of the brand name

Specifically for BAV, two BN-related aspects are relevant: (1) BN associations, and (2) BN-awareness. As BN associations are already important when choosing a BN, the discussion will first concern these associations, and will subsequently turn to BN-awareness.

Brand name associations

In chapter 1, five general criteria for an acceptable BN were listed. One of these criteria, is that a BN must have favourable associations, and that it must not have an undesirable meaning in the countries where the brand is marketed. With regard to this point, it is important to realize that a new

8: These are cues that belong to the domain of the product-mix.

(yet unknown) BN may already invoke associations in the consumer's mind. One may state, that some BNs fit a product better than other BNs. Peterson and Ross (1972) state, that a BN that elicits associations with other existing brands in the product class, 'fits' a product better than other names. Related to this 'fit' of a BN are the associations a name may invoke in itself. Take for example the names 'Kangaroo' and 'Laser'. 'Kangaroo' may initially invoke associations of 'jumping' and of 'fast movement'. 'Laser', on the other hand, may initially invoke associations of 'advanced technology'. On the basis of these associations, the BN 'Kangaroo' fits sports shoes better than computers. The BN 'Laser', on the other hand, fits computers better than sports shoes. What may be clear from this is, that when a brand with a new BN is introduced, immaterial brand associations are limited to those associations the BN may trigger (i.e. the initial associations of an unknown BN). Regarding this, one should also be aware that certain new and unknown BNs may invoke negative or inappropriate reactions in the consumer's mind. This may in turn lead to a negative influence on BAV. However, effective marketing communication and usage experience may teach consumers to associate other qualities with a BN. Even a BN that initially invokes negative associations in the consumer's mind, may invoke positive associations at a later point in time. For example, such a shift in associations may have appeared with the BN 'Apple' for computers. Initially, this BN appears to have no relationship with computers, and it has no technological reference. For a complete lay member in computers, the BN 'Apple' may even detract from the BAV for that brand. However, due to marketing communication and word-of-mouth advertising, the BN 'Apple' has evolved into a name that invokes associations of sophistication. Such differences in BN associations, are reflected by what Collins (1974; 1992) calls the Joyce and the Juliet principle[9]:

1. According to the Joyce principle, (brand-) names have a meaning of their own, and they may trigger a certain feeling by themselves (see Friedman and Dipple, 1978; Schloss, 1981; Room, 1992; Vanden Bergh et al., 1987). Examples are given above (like 'Kangaroo' and 'Laser', and the meaning of 'Apple' for the true layman in computers).

9: Collins (1974) bases the Joyce principle on the phonetic symbolism used by James Joyce in works like 'Finnegan's wake'. Collins bases the Juliet principle on a part of a plot of the Shakespearian play Romeo and Juliet: *What's in a name? That which we call a rose, by any other name would smell as sweet.*

2. According to the Juliet principle, BNs invoke associations in the consumer's mind as a result of what consumers *have learned* to associate with that name. For example: consumers who regularly work with computers have learned to associate 'Apple' with sophisticated computers.

For a newly-introduced brand, with a new BN, the Joyce principle overrules the Juliet principle; brand associations are limited to (semantic) name associations. However, after a period of effective marketing communication, the Juliet principle is most likely to push the Joyce principle aside (like in the case of the BN 'Apple'). In the case of the Juliet principle, not the semantic associations of the BN, but the connotations that consumers have learned to associate with the BN are relevant. The relationship between the BN associations and BAV has been summarized in proposition 3.8a.

Proposition 3.8a: For a new brand with a new BN, the BN itself (i.e. the semantic associations of the BN) is a major source of BAV. When brand-related information (on intrinsic or extrinsic cues) is linked to the BN by means of marketing communication, the influence of the initial semantic associations of the BN on BAV strongly diminishes.

Brand name awareness

Besides BN associations, the 'level of awareness' of the BN is also relevant for BAV. At the beginning of section 1.3, it was stated that advertising may be used to make a BN known to consumers on a large scale. When introducing a new brand, a major goal of advertising is to increase the consumers' awareness of the BN (besides telling consumers on what grounds the brand differs from its competitors). Actually, BN-awareness may range from 'unawareness', 'recognition', and 'recall', to 'top-of-mind awareness' (Aaker, 1991 p.62). A very well-known BN may invoke feelings of familiarity, and consequently, consumers may attribute positive feelings to such a BN. One may state that a well known BN is of more value to consumers, than an unknown BN (i.e. 'unknown, unloved'). Consumers also *prefer* a well known BN to an unknown BN (Woodside and Wilson, 1985). In other words: BN-awareness may function as a source of BAV[10]. That consumers prefer a well known BN to an unknown BN, is corroborated by studies re-

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10: Theoretically one may state, that, if consumers are more aware of BN X than of BN Z, the BAV of brand X will be higher than the BAV of brand Z (assuming that all other influential factors have the same value).

ported by Makens (1965) (on brand preference for turkey meat), Jacoby et al. (1971) (on perceived quality of beers), and Venkataraman (1981) (on willingness to buy washing machines, dryers, dishwashers, ranges, freezers, and refrigerators). The experiments reported by these authors also show that - for well known brands - a BN is of more influence on the dependent variable than other extrinsic cues (like price). Nedungadi (1990) reports similar results (on behavioural intentions of visiting fast food restaurants). Nedungadi even shows that:

> *brand-choice probabilities can be influenced without changing brand evaluation merely by altering the probability of brand retrieval and the contents of the consideration set.*[11]

An explanation for consumers' preferences for well known BNs may be found in the fact that repeated exposures to a brand (name) may make a BN more familiar to consumers. In proposition 3.8b, the relationship between BN-awareness and BAV is summarized.

Proposition 3.8b: The level of BN-awareness may contribute to the BAV of a brand (i.e. the higher the level of BN-awareness, the more positive BAV is).

With regard to the BN, it may be concluded that the BN itself may have an influence on BAV in two ways:

1. The associations of the BN itself may influence the brand associations, and therefore the BAV of that brand.
2. The level of awareness of a BN may function as a source of BAV.

The latter factor becomes more important, if competitors do not invest much effort in building BAV for their brands. In such cases, the BAV of one's own brand may already increase substantially if consumers are made more aware of it. BN-awareness may increase through intensive advertising; a marketing tool that is discussed in section 3.3.5.

11: Aaker and Day (1974) showed in the case of instant coffee, that an increase in awareness is sufficient to influence buying behaviour (the effect of awareness on attitude was extremely low).

3.3.2 Product-related cues

Below, the discussion turns to three product-related extrinsic cues: packaging, labelling information, and remaining cues, like period of warranty, credit, delivery, installation, and service. The relationship of each cue with BAV is discussed in the order given.

Packaging

Packaging may be an important tool in branding so as to differentiate a brand from its competitors. When advertising is not used as a tool in a brand strategy, packaging may be most important; Lewis (1991 p.158) refers to packaging as 'a free advertising medium', whereas Hise and McNeal (1988) call it 'the silent salesman at the point of sale'. Packaging may contribute to BAV in two ways: the appearance of a package may influence consumer judgments on intrinsic cues (i.e. the perceived quality of the brand), and it may add certain associations to the brand.

If the appearance of a package influences consumer judgments on intrinsic cues, consumers may link such information to the BN (this is most likely to happen in the case of products with predominantly experience cues). Examples of this are given by McDaniel and Baker (1977) on potato chips, and Stokes (1985) on rice. In the study reported by McDaniel and Baker (1977), consumers judged chips from a polyvinyl and a wax-coated paper bag. Chips from a polyvinyl bag were favoured over chips from a wax-coated paper bag[12]. A blind test showed no significant differences in crispness and taste between potato chips from either packages. Stokes (1985) reports a study on package design for rice (two levels: an old and a new design). The results show that:

> *The test brand presented in the new design is rated higher in quality than when presented in the old design.*

What both experiments make clear, is that different packaging may lead to different perceptions of quality, and even to different preferences. Thus, on the basis of packaging (an extrinsic cue), consumers may form judgments on intrinsic cues. It is however difficult to point out what conditions must be met for packaging to contribute to BAV. With respect to packaging, fashion cycles may determine what kind of packaging is appropriate, and what kind of packaging is not appropriate.

12: Chips from the polyvinyl bag were perceived as crisper and tastier (by 93 % of the subjects).

Besides influencing the perceived quality of the brand, packaging may also add associations to the brand. For example: on a bottle of Malibu (coconut laced with light Jamaican rum), a sunset between palm trees is depicted. This pictorial information may add associations to the brand like 'tropical, and laid-back'. Through invoking the right associations, the package may contribute to, and facilitate the brand image (Schwartz, 1971) and BAV. In proposition 3.9, the influence of packaging on BAV is summarized.

Proposition 3.9: Packaging may contribute to BAV through influencing the perceived quality of the brand, and through adding (immaterial) associations to the brand.

Labelling information

Labelling information may comprise textual and pictorial information on a label attached to the branded article, on an inserted leaflet, or on the article itself. As with the other extrinsic cues, labelling information may influence both the perceived quality of the brand and add immaterial associations to the brand. Labelling information can be divided into five categories[13]:

1. Information on country of origin ('Made in... ').
2. Information on year of introduction ('Since... ').
3. Information on contents.
4. Information on directions for use.
5. Information on other product related cues (e.g., the name of a designer).

Below, each aspect is discussed in the order given.

Explicitly stating the *country of origin* on the label, may influence the perceived quality of the brand (e.g., Japanese cars are perceived as having low repair rates). Explicitly stating the country of origin may also add associations to the brand (e.g., 'romanticism' for a fragrance from Paris, France). Proof of a country-of-origin's effect on consumers' attitudes is given by several studies (see Bilkey and Nes (1982), on a review of 25 studies). In box 3.2, some salient findings of studies are listed.

Information on country of origin should be linked to the BN in cases where:

13: The BN is a constituent of labelling information. The role of the BN with respect to BAV has already been discussed in section 3.3.1.

1. The general product image of a country contributes to the perceived quality of the brand[14].
2. The general product image of a country resembles the desired associations of the brand.

Thus, if country of origin may contribute to the perceived quality of the brand or to the brand associations, the country of origin of a brand should be stressed on labelling information and in advertising. In proposition 3.10, the influence of country of origin on BAV is summarized.

Box 3.2: Some general findings on the country-of-origin effect

Various studies on the country-of-origin effect show, that:

1. Although consumers tend to prefer brands made in their own country (Nagashima, 1970; Gaedeke, 1973; Morello and Boerema, 1989), consumers from less developed countries tend to prefer products from more developed countries (Bilkey and Nes, 1982).
2. Attitudes towards the country of origin may depend on age, sex, and socio-economic characteristics (Bannister and Saunders, 1978). For example, in Europe, older consumers may dislike German brands more than younger consumers.
3. Attitudes towards the country of origin may change in time (Nagashima, 1977).
4. The influence of country of origin may vary between product classes (Morello and Boerema, 1989). For example, Japanese automobiles may be perceived as 'value for money' and 'reliable', while Japanese beer may be perceived as having an insipid taste. Also, a general country-of-origin-product image may show discrepancies with a specific product-class image. For example, the image of German thoroughness may conflict with the product class of fragrances in which romantic associations may be more important (see also: Etzel and Walker, 1974).

14: For example, in the U.S.A., Audi used in its advertisements the pay-off 'Vorsprung durch Technik'. This pay-off clearly stresses the German heritage (country of origin) of the car, by that positively influencing the perceived quality of Audi.

Proposition 3.10: Information on country of origin may contribute to BAV through influencing the perceived quality of the brand, and through adding immaterial associations to the brand. The country of origin should be emphasized if consumers' associations with this country fit the desired brand associations.

Information on the *year of introduction* of the brand may also influence the perceived quality of the brand, and it may add specific associations to the brand. With regard to the perceived quality of the brand, an example may illustrate the effect of the year of introduction. Heinz (tomato ketchup), was - according to the labelling information - established in 1869. This historical date may give consumers the impression that the quality of Heinz products is high, because Heinz has been able to stay in business for more than one century. A historical date may also signal expertise through experience. With regard to brand associations, a historical date may invoke associations of, for example, 'the-good-old-days' and of 'nostalgia'. If year-of-introduction associations contribute to the perceived quality of the brand, or support the desired immaterial brand associations, one may explicitly link that information to the BN. In proposition 3.11, the influence of year of introduction on BAV is summarized.

Proposition 3.11: Information on the year of introduction of the brand may contribute to BAV through influencing the perceived quality of the brand, and through adding immaterial associations to the brand. Year of introduction should be emphasized if the associations of a historical date fit the desired brand associations.

Information on contents is frequently used for food products, and may be formulated on the brand's label in three ways:

1. Information on ingredients (the materials used).
2. Information on nutritional value, like the number of joules or calories, and amount of fats, proteins, carbohydrates, minerals and vitamins.
3. Claims that refer to ingredients and nutrition value, like: 'no cholesterol'.

In box 3.3, findings of studies regarding information on contents are summarized. As is the case with other labelling information, information on contents may influence the perceived quality of the brand, and may add

Box 3.3: Some general findings of studies on information on contents

Research shows that information on contents may influence consumer perceptions, but that it does not usually influence actual purchasing behaviour. Asam and Bucklin (1973) report on a study on canned peas. In this study, nutritional labelling influenced consumer perceptions of quality attributes, but it did not influence purchasing preferences. Achabal et al. (1987) report on a study on vegetables and fruits in which nutritional labelling had little, if any, effect on purchasing behaviour[15]. Aldershoff et al. (1988) report on a study, in which information on nutrition value could be shown to have an effect on purchasing behaviour, for bavarois and Russian salad. However, they did not find an effect for liver sausage and cream crackers[16]. The concept of 'information overload'[17] may explain the marginal influence of information on contents on consumer perceptions and purchase behaviour. It seems that information on contents does have an influence on consumer perceptions and behaviour, if consumers dislike certain ingredients or nutrients (like the amount of fat in food products) (Achabal et al., 1987). According to Achabal et al., consumers only use information on contents if they want to *avoid* specific ingredients or nutrients (like sodium and calories). In accordance with Achabal et al., consumers do not use information on contents to buy brands with desirable contents (like vitamins).

specific associations to the brand. Because with information on contents, intrinsic cues are used as extrinsic cues, information on contents *may*

15: Achabal et al. (1987) used 'nutrition P-O-P signs' that 'were placed in a holder strip about six feet off the floor, directly above the produce items they referred to'. A remarkable conclusion is, that the P-O-P signs significantly enhanced the image of the participating stores.

16: The independent variable in this (laboratory) experiment was the amount of fat listed in the information on nutrition value. An additional claim referring to a lower amount of fat appeared to have no effect.

17: Jacoby et al. (1974) report on an experiment with detergents, in which they manipulated the information quantity. Results show that subjects were able to choose their ideal brand better when the number of information items increased. If, however, the number of brands also increased, subjects made poorer purchase decisions. Muller (1985) reports that a brand-by-nutrition matrix on a single point-of-purchase may cause a shift in buying behaviour towards nutritionally higher-ranked brands. Russo (1977) recommends a similar (matrix) approach for price-and-size relationships.

influence the perceived quality and the BAV of the brand. However, it appears that information on contents has little influence on consumer perceptions and consumer behaviour. Only when consumers want to avoid certain ingredients, may information on contents influence BAV (in a negative way) (see box 3.3). Information on contents may also add specific associations to the brand, like associations of healthiness for food products (e.g., by using the claim: 'lowers cholesterol'). With respect to information on contents, one may wonder whether such information modifies experience cues into search cues. If this were the case, the influence of the BN would decrease because of information on contents (in accordance with figure 2.2). Consequently, the BAV of the brand should also decrease. However, one should realize that verification (or falsification) of information on contents is only possible *after consuming the brand*. In our opinion, information on contents does not change the nature of the basic product. Thus, information on experience cues does not change these cues into search cues. Information on contents may influence BAV through summarizing beliefs on the brand (i.e. in accordance with the summary construct), and by adding immaterial associations to the brand. In proposition 3.12, the influence of information on contents on BAV is summarized.

Proposition 3.12: Information on contents do not usually contribute to BAV, by means of influencing the perceived quality of the brand. However, information on contents may contribute to BAV through adding specific associations to the brand (especially if these associations relate to contents the consumer wants to avoid).

Information on *directions for use* (e.g., recipes for food products or operation manuals for durable consumer goods), may have little influence on BAV. An exception may be found for complex-to-use durable consumer goods (like computers). If a brand is able to built up a reputation for providing comprehensive directions for use, consumers may link such information to the BN (and as a consequence, BAV may increase). In proposition 3.13, the influence of directions for use on BAV are summarized.

With respect to *information on other product cues*, BAV may be increased if the information has value to consumers. For example, for some models, Alfa Romeo places the name of the designer on the car, which may invoke associations of uniqueness and sophistication.

Proposition 3.13: Information on directions for use do not usually contribute to BAV. An exception to this rule is complex-to-use durable consumer goods, in which directions for use may add immaterial associations to the brand.

Remaining (product-related) cues

The remaining product-related cues (period of warranty, credit, delivery, installation, and after-sales service), may influence both the perceived quality of the brand, and the immaterial brand associations. For example: a long period of warranty may signal high quality, and an intensive after-sales service may invoke associations of reliability. Especially in services and industrial products, these remaining product-related cues may differentiate one's own brand from those of one's competitors. In proposition 3.14, the influence of period of warranty, credit, delivery, installation, and after-sales service on BAV is summarized.

Proposition 3.14: Period of warranty, credit, delivery, installation, and after sales service do not usually contribute to BAV for (tangible) consumer products. However, for services and industrial products, these factors may contribute to BAV through influencing the perceived quality of the brand, and through adding immaterial associations to the brand.

3.3.3 Price

The extrinsic cue price may exert its influence on BAV through influencing perceptions on intrinsic cues (i.e. the perceived quality of the brand). The price of the brand may also invoke certain immaterial associations in the consumer's mind (like for expensive brands: 'snobbishness'). Below, the price - quality - BAV relationship will be examined in more detail.

The price of a brand is often related to the quality of a brand. In this price - quality relationship, two perspectives can be distinguished. According to the so-called 'normative perspective' on the price - quality relationship, a high mechanistic quality results in a high price. According to this perspective, quality has a direct monotonous relationship with price. By turning the principle around, a high price must stand for high quality. Following this principle, consumers associate price with quality (Levin and Johnson,

1984). Another perspective on the price - quality relationship is based on empirical information. Working on the basis of this empirical information, it can be stated that the price - quality relationship is weak, and that the strength of the relationship may differ between product classes (Gerstner, 1985; Lichtenstein and Burton, 1989; Steenkamp, 1989 p.236-237)[18]. Furthermore, it appears that consumers use an acceptable price range (between a minimal and a maximal price level) in their decision-making process. Below a certain price (or threshold), consumers perceive the brand as too cheap and quality is thought to be suspect. Above a certain price, consumers perceive the brand as too expensive (see Gabor and Granger, 1966). Levin and Johnson (1984) corroborate this proposition. They find a so-called 'floor' and 'ceiling' effect: above or below a certain boundary, consumers tend to keep their price and quality judgments constant, irrespective of the change in either variable. This acceptable price range usually lies around a reference price, which is formed by past pricing experiences of the consumer (Monroe, 1973). Thus, within this price range, there may be a positive influence of price on perceived quality (and hence on BAV). Below this price range, price derogates perceived quality and BAV. Above this price range, price may also influence perceived quality and BAV, although such a situation is not likely to result in buying behaviour (due to budget constraints).

Rao and Monroe (1989) review studies on the price - perceived quality relationship. Rao and Monroe also took studies into consideration that used BN and store name as independent variables (besides studies using price as an independent variable) (see also: Monroe and Krishnan, 1985). Unfortunately, Rao and Monroe (1989) do not take the distinction predominantly search vs predominantly experience cues into account, in reviewing the price - quality relationship. On the basis of 36 studies, Rao and Monroe conclude that certain experimental factors improve the effect of price on perceived quality[19]:

18: Gerstner (1985) reports that durable consumer goods show more positive price-quality relationships than non-durable consumer goods (see also: Steenkamp, 1989 p.236-237). However, Lichtenstein and Burton (1989) report that consumers had less difficulty in estimating the price - quality relationship for non-durable consumer goods, than for durable consumer goods (this may be due to differences in frequencies of use).

19: Besides the three results reported here, Rao and Monroe (1989) also found, that within-subjects designs lead to larger effects on perceived quality than between-subjects designs.

1. The greater the range of prices for the brands used, the larger the effect on perceived quality. This factor may relate to the concept of 'just no ticeable differences' (JNDS) (for an application to pricing, see Monroe 1973). One should however be aware that the perceptibility of price dif ferences may be disturbed by:
   a. Charm prices (Gabor, 1980 p.144 and p.200), which are also called odd pricing, psychological pricing, the penny-below-the-round-figur principle, and the '9 fixation'.
   b. Price-and-size relationships (Friedman, 1966, 1972; Gabor, 198(p.147 ff), which make it difficult for consumers to compare price between brands[20].
   c. Advertising, which may lead to changes in consumers' price sensitiv ity (see section 1.2).
2. High prices tend to result in larger effects on perceived quality, than lov prices (see also: Monroe and Krishnan, 1985 p.217).
3. Multiple cues reinforce the effect of price on perceived quality.

Shapiro (1973) reports on a study that seems to reflect the price - quality relationship quite well:

> *... the data tend to confirm that price is a communicator of quality... . On the other hand, the data do show that price is not a strong communicator of quality.*

In other words: price may be a cue that consumers use to infer the (mech anistic) quality of the brand. However, price is not a strong communicato of quality. Other cues (like the BN) may hold a higher position in the hier archy of brand cues. The latter is especially true for brands with a strong brand image (see Venkataraman, 1981). Other characteristics may alsc moderate or intervene in the price - perceived quality - BAV relationship (e.g., a 'cheap looking' package may derogate the effect of a high price or BAV). As a rule of thumb, one may state that the price of a brand should no be lower than the mean of all prices in a product class, to contribute tc BAV. Riezebos and Pruyn (1991) report on a study in which marketing practitioners indicated that the price of a brand should be even higher thar the average price of competing brands in the market, so as to contribute tc BAV. In proposition 3.15, the influence of price on BAV is summarized.

20: Some stores use unit pricing tags (prices expressed in terms of a common denominator) (Gabor, 1980 p.152-153). Russo (1977) reports that a list of unit prices (for a produc class) may ease the consumer decision process (see also: Muller (1985) on the brand-by-nutrition matrix).

Proposition 3.15: The price of a brand may contribute to BAV through influencing the perceived quality of the brand (i.e. a noticeably higher price invokes a higher perceived quality). The price of a brand may also add immaterial associations to the brand; if these associations correspond to the desired brand associations, price information should be emphasized in advertising.

3.3.4 Distribution

With respect to distribution, two factors may contribute to BAV: (1) the image of the stores which sell the brand; (2) the degree of distribution coverage (i.e. the number of outlets which sell the brand). One might expect that store image most strongly influences the perceived quality of the brand, whereas distribution coverage most strongly influences immaterial brand associations (i.e. sparsely distributed brands may invoke associations of exclusiveness in the consumer's mind). For certain product classes, such associations may contribute to the BAV of a brand (e.g., an expensive brand of cigars, which is only sold in specialty shops). Below, some studies on store image are elaborated upon, and conclusions are drawn on BAV.

Mazursky and Jacoby (1986) distinguish three factors in store image: merchandise quality, service quality and pleasantness[21] (see also: Mazursky and Jacoby, 1985). In studies on the price - quality relationship, store image is sometimes used as another independent variable (Stafford and Enis, 1969; Szybillo and Jacoby, 1974)[22]. Stafford and Enis (1969) report a study in which store image led to an interaction effect with prices for household carpet (however, prices overruled store image). Szybillo and Jacoby (1974) report a study in which store image led to a main effect for ladies hosiery. Stafford and Enis (1969) also report that low-priced carpets in high-prestige stores led to lower quality perceptions than low-priced carpets in low-prestige stores. High-priced carpets were, however, perceived to be of lower quality in low-prestige stores than in high-prestige stores.

21: Cues on which consumers judge these factors are: the brands being sold, the number of sales persons per department, and the interior design respectively (Mazursky and Jacoby, 1986).

22: Achabal et al. (1987) report that 'nutrition P-O-P signs' for vegetables and fruit lead - if noticed by consumers - to a more positive image of the supermarket (see also footnote 15).

These findings make it clear that brand and store image may interact with each other. Jacoby and Mazursky (1985) conclude in a study on store image, that store image *seems* more dependent on the images of the brands being sold, than the other way around[23]. Thus, it seems that for most A-brands, store image hardly functions as a source of BAV (although this is not clear for sparsely distributed brands). However, it seems that stores with a high-quality image, may harm the BAV of B- and C-brands (following the results of Stafford and Enis, 1969). In propositions 3.16a and 3.16b, the influence of distribution on BAV is summarized.

Proposition 3.16a: Store image does not usually contribute to BAV. However, stores with a high-quality image may harm the BAV of low-priced brands.
Proposition 3.16b: Distribution coverage may contribute to BAV through influencing immaterial brand associations (i.e. sparsely distributed brands may invoke associations of exclusiveness in the consumer's mind). When these associations correspond to the desired brand associations, distribution coverage should explicitly be used as a marketing tool.

3.3.5 Advertising

In chapter 1 it was stated that adding information to a BN may result in consumers attaching value to this BN (i.e. BAV). A major tool in adding information to the BN is advertising. In this section, the information content of advertisements is looked into as is what kind of advertisement may be effective for products with predominantly search cues, and what kind of advertisement may be effective for products with predominantly experience cues.

The information content of advertising
In advertising, a distinction can be made between rational and emotional information (see figure 1.2). It may be stated, that intrinsic cues are communicated best through rational information, whereas extrinsic cues are communicated best through emotional information. In section 1.3, rational information was defined as information that may contribute to consumers' cognitive memory elements, whereas emotional information was defined as

23: A brand with a high-quality image, improved the (initially low) store-image for quality. However, a brand with an initially low-quality image, may harm both the (initially high) store-image and the brand-quality image (Jacoby and Mazursky, 1985).

information that may contribute to consumers' affective memory elements. In section 1.3 it was also stated that the boundary between rational and emotional information is not clear-cut. After all, an advertisement for a make of car showing a specific model, may contain both rational and emotional information. In practice, many advertisements contain little or no rational information at all. In box 3.4, studies are cited that corroborate this statement. Rational aspects in advertising are for instance 'unique selling propositions' (USP). A USP is an proposition that is used to communicate the unique (functional) advantages of the brand involved (Reeves, 1961 p.46-49). A condition for a USP to be effective, is that it should refer to a product attribute which is appealing to consumers; a so-called 'key attribute'. Sharpe and Granzin (1974) call these key attributes 'determinant attributes'. From now on, advertisements that primarily contain rational aspects will be called 'informational advertisements'. Some authors also call informational advertisements 'USP advertisements'. Advertisements that primarily contain emotional aspects, will from now on be called 'transformational advertising'. Some authors also call transformational advertisements 'advertisements of the mood-type'. Here, the reader's attention is drawn to the fact that Rossiter and Percy (1987 p.188 note 15) apply the terms 'informational' and 'transformational' to *brand-purchase motivations*[24]. Wells (1981; referred to in Rossiter and Percy, 1987 p.188) and Aaker (1991) apply the terms to *advertising types*, in the same way as the present study. Aaker (1991 p.163) defines 'transformational' as 'advertising which creates brand associations that change the use experience'. So, we apply the terms 'informational' and 'transformational' to advertising types.

The difference between informational and transformational advertisements may be reflected in American and European points of view on communication (see Carey, 1975; Lannon and Cooper, 1983):

1. Americans view communication mainly as a process of extending 'influence, control, and power over wider distances and over greater populations' (Carey, 1975). Communication aims at persuasion and behaviour modification (i.e. 'hard-sell'). Informational advertising fits this view best.

24: According to Rossiter and Percy (1987 p.166) consumers use informational products 'to reduce or turn off a negative motivation', whereas consumers use transformational products 'to turn on a positive motivation'.

Box 3.4: The 'rational' information content of advertisements

With regard to television commercials

1. Resnik and Stern (1977) judged 378 commercials, using 14 evaluative criteria[25]; 50.8 % of the commercials contained no informational cues at all (mean number of informational cues per commercial: 0.67).
2. Aaker and Norris (1982) report a study in which consumers judged 524 commercials; an average of only 18.2 % of the commercials was perceived as (rational) informative.
3. Weinberger and Spotts (1989) judged 450 U.S. and 247 U.K. commercials. 35.5 % of the U.S. commercials, and 46.4 % of the U.K. commercials, contained no informational cues at all (mean number of informational cues per commercial: 0.98 for U.S. commercials, and 0.75 for U.K. commercials). Weinberger and Spotts used the same 14 evaluative criteria as Resnik and Stern (1977) did.
4. Stern and Resnik (1991) judged 340 commercials; 48.8 % of these commercials contained no informational cues at all (mean number of informational cues per commercial: 0.85). Stern and Resnik used the same 14 evaluative criteria as Resnik and Stern (1977) did.

Regarding magazine advertisements

1. Stern et al. (1981) judged 1,491 advertisements; 14.2 % of the advertisements contained no informational cues at all (mean number of informational cues per advertisement: 1.73). Stern et al. used the same 14 evaluative criteria as Resnik and Stern (1977) did.
2. Healy and Kassarjian (1983) judged 468 advertisements; the mean number of informational cues per advertisement amounted 3.78. Healy and Kassarjian used the same 14 evaluative criteria as Resnik and Stern (1977) did.

The high number of informational cues reported by Healy and Kassarjian (1983), may be due to the fact that Healy and Kassarjian used only products with predominantly experience cues. Stern et al. (1981) used both products with predominantly search, and products with predominantly experience cues.

25: Resnik and Stern used as evaluative criteria: (1) price or value; (2) quality; (3) performance; (4) components or contents; (5) availability; (6) special offers; (7) taste; (8) packaging or shape; (9) guarantees or warrantees; (10) safety; (11) nutrition; (12) independent research; (13) company-sponsored research; (14) new ideas.

2. Europeans view communication mainly as 'a process through which a shared culture is created, modified, and transformed' (Carey, 1975). Such a ritual view on communication is, according to Carey 'not directed toward the extension of messages in space, but the maintenance of society in time' (i.e. 'soft-sell'). Transformational advertising fits this view best.

Weinberger and Spotts (1989) report on a study which supports these different orientations towards advertising. These authors compared U.S. and U.K. television commercials on information content. The results show, that U.K. commercials contained less rational information than U.S. commercials. The results also show that U.K. commercials contained fewer informational cues per commercial, than U.S. commercials did (see also box 3.4). The time has come to consider what type of advertisement (informational vs transformational) is more appropriate for what type of product (predominantly search vs predominantly experience cues).

Linking informational and transformational advertisements with search and experience cues

In section 2.1 ('elaborations upon the Lens model'), the discussion centred upon the different ways communication may function for both products with predominantly search, and products with predominantly experience cues (see figures 2.3a through 2.3d). Deriving from these four situations, the following problem to address is what type of advertisement suits what type of product best. On the subject of providing information in advertising, Nelson (1974) concludes that:

1. For products with predominantly search cues, advertisements should contain 'hard' information (i.e. a USP), because these products are mainly judged on intrinsic cues.
2. For products with predominantly experience cues, advertisements should contain 'soft' information, because consumers are not able to verify whether information on intrinsic cues is true or false.

However, the hypothesis, that the more a brand is differentiated from other brands (i.e. the more information is added to the BN) the more BAV will increase, could also be considered. So, our view is that advertising contributes to BAV on the basis of *complementarity*; those cues that cannot be inferred from the product should be used in advertising. The following illustration may clarify this proposition for products with predominantly search cues:

- products with predominantly search cues are judged by consumers on (revealed) intrinsic cues;
- if advertising communicates information on these intrinsic cues (i.e. rational information), no extra information is added to the BN;
- however, if advertising communicates information on extrinsic cues (like emotional information), extra information is added to the BN.

Thus, for products with predominantly search cues, transformational advertising contributes more to BAV than informational advertising does. In this, the BN functions as a halo construct (see figure 2.3a). For products with predominantly experience cues, the brand cannot be judged on its intrinsic cues. So, rational information on these cues brought up in advertising may contribute to BAV. In this, the BN may function as a summary construct (see figure 2.3d) by being a cue to information on intrinsic cues. However, emotional information on extrinsic cues (like immaterial associations) may also contribute to BAV. In concluding on what type of advertising contributes more to BAV for products with predominantly experience cues, the assumption is that eventually consumers choose a product for its intrinsic cues. Deriving from this assumption, it can be stated that - for products with predominantly experience cues - informational advertising contributes more to BAV than transformational advertising.

Besides differences in information content, the way advertising influences BAV may also differ between products with predominantly search and products with predominantly experience cues. In this respect, the halo construct has been focused on for predominantly search cues (figure 2.3a), and the summary construct for predominantly experience cues (figure 2.3d). In fact, these situations refer to transformational and informational advertising, respectively. In the halo construct, the aim is to add positive associations to the brand that may influence evaluations of beliefs in preferences for a specific brand. What should happen is that consumers should like the advertising for a brand, and that their attitude towards the advertisement (A_{AD}) should influence their attitude towards the brand (A_{BRAND}) in a positive way. In other words: an attitude transfer should take place from A_{AD} to A_{BRAND}[26] (the classical conditioning approach may explain such an attitude transfer). In the summary construct, advertising aims at influencing A_{BRAND} directly, by summarizing information on intrinsic cues.

26: See Shimp (1981), Mitchell and Olson (1981) on facial tissues, and Gardner (1985) on tennis balls and cooking oil.

In propositions 3.17a and 3.17b, a summary is given of the influence of advertising on BAV for products with predominantly search, and products with predominantly experience cues, respectively. In section 3.5, the problem of what type of advertisement suits what kind of product best, is translated into a research question. In chapter 6, this research question is addressed empirically.

> **Proposition 3.17a**: For products with predominantly search cues, transformational advertising contributes more to BAV than informational advertising.
> **Proposition 3.17b**: For products with predominantly experience cues, informational advertising contributes more to BAV than transformational advertising.

Above, five groups of extrinsic cues that may contribute to BAV were reviewed. Before recapitulating on this chapter, a brief discussion of the way line and brand extensions may contribute to BAV will be given.

3.4 Line and brand extensions

In section 1.2, the terms line and brand extensions were introduced, under 'trans-category extensions'. Line and brand extensions may also contribute to the BAV of a brand, in the same way as intrinsic and extrinsic cues may contribute to BAV. With regard to line and brand extensions, the pivotal question is usually whether the extended brand may profit from the parent brand. However, besides the fact that the parent brand may contribute to the BAV of the extended brand, it is also possible that the extended brand may contribute to the BAV of the parent brand. Based on different studies, the following guide-lines have been formulated for the way line and brand extensions may contribute to BAV[27]:

1. With regard to the perceived quality of the brand: if the parent brand is differentiated on perceived quality, consumers accept extensions so long as the extended brand invokes the same level of perceived quality as the parent brand does (partly derived from Sunde and Brodie, 1993).

27: These guide-lines are based on the, partly contradictory, findings of Aaker and Keller (1990) and Sunde and Brodie (1993). Sunde and Brodie replicated the study of Aaker and Keller. In formulating these guide-lines, we assume that both the perceived quality of the brand, and the immaterial brand associations, fit consumers' needs and wants.

2. With regard to 'brand-extension typicality'[28]: the more typical an extension is, the more positively it is evaluated (i.e. there is 'perceptual fit') (Tauber, 1981; 1988; Boush and Loken, 1991). Cues that differentiate the parent and the extended brand (like price), may detract from the consumer's acceptance of a brand extension (Fry, 1967; Neuhaus and Taylor, 1972). Aaker and Keller (1990) and Sunde and Brodie (1993) conclude that the two most important factors in brand-extension typicality are (as they label them): 'TRANSFER' (the perceived ability of a firm to make a product in a new product class) and 'COMPLEMENT' (the extent to which consumers view two products as complementary). The factor 'SUBSTITUTE' (indicating the extent to which consumers view two products as substitutes for one another) is considered of minor importance.

Furthermore, Aaker and Keller (1990) conclude, that if consumers are uncertain about an extension attribute, a brief elaboration (e.g., on the package) may lead to more favourable extension evaluations. If the guide-lines formulated above are compared to the basic structure of sections 3.2 and 3.3, the implication is that two sources of BAV may determine the success of line and brand extensions: the perceived quality of the brand, and the immaterial brand associations. If a brand is strongly differentiated on perceived quality (i.e. the perceived quality of the parent brand is high), the implication is that a line or brand extension is successful if:

1. The intrinsic and extrinsic cues of the extended brand support the high perceived quality of the parent brand. And if:
2. The extended brand fits the immaterial brand associations of the parent brand.

If the parent brand is merely differentiated on immaterial brand associations, the implication is that a line or brand extension is already successful if the extended brand fits the associations of the parent brand. With regard to the brand associations, the failure of 'Levi Tailored Classics' men's suits in the early 1980s, may serve as an example. Many consumers associate Levi's with 'denim, durable, working men, mining and good value' (Aaker, 1991 p.207) and 'informality, toughness and outdoors' (Arnold, 1992 p.46). In short: Levi's is associated with leisure wear, and not with men's suits. Thus, there was no fit in terms of associations between the parent Levi's products and the Tailored Classics. When brand associations

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28: Brand-extension typicality refers to the perceived similarity between the parent and the extended brand. The perceived typicality of a brand may be influenced by the brand breadth (the variation among a brand's current products) (Boush and Loken, 1991).

play a dominant role in the BAV of a (parent) brand, the extended brand should fit these associations. In proposition 3.19, the way line and brand extensions may contribute to BAV are summarized.

Proposition 3.19: Line and brand extensions may contribute to the BAV of the parent brand if:
1. The extended brand has a high perceived quality if the parent brand has a high perceived quality. And if:
2. The extended brand fits the immaterial brand associations of the parent brand.

By way of conclusion, this chapter finishes with a brief recapitulation of the factors that may contribute to BAV, and with a suggestion for research hypotheses to be tested empirically.

3.5 A recapitulation and the formulation of research questions

This chapter was concerned with factors that may contribute to BAV. Recapitulating the following conclusions were arrived at:

1. Characteristics of the product class may have their influence on MBAV:
   a. Theoretically, it is to be expected that the distinction 'predominantly search vs predominantly experience cues' explains differences in MBAV between product classes, best.
   b. In the opinion of marketing practitioners, it is to be expected that the distinction 'predominantly functional vs predominantly expressive cues' explains differences in MBAV between product classes, best.
2. The direct influence of intrinsic cues on BAV is limited, although a threshold value is required to make a positive BAV possible. However, intrinsic cues may affect BAV indirectly (by adding information to the BN about these cues), and intrinsic cues may interact with certain extrinsic cues in influencing BAV.
3. Extrinsic cues may contribute to BAV by influencing the perceived quality of the brand, and by adding immaterial associations to the brand. The level of BN-awareness may also contribute to BAV. When a brand is introduced, brand associations are limited to semantic associations of the BN. Through effective advertising these initial associations may be pushed aside by explicitly-chosen brand associations. With regard to advertising, our conclusion is that:

a. For products with predominantly search cues, transformational advertising contributes more to BAV than informational advertising.
b. For products with predominantly experience cues, informational advertising contributes more to BAV than transformational advertising.

4. Line and brand extensions may contribute to BAV if:
   a. The extended brand has a high perceived quality if the parent brand has a high perceived quality. And if:
   b. The extended brand fits the brand associations of the parent brand.

Based on the theory discussed in this chapter, the research questions of this thesis can now be formulated. These research questions focus mainly on points 1, 3a, and 3b formulated above.

Research questions

In the preceding part of this thesis, BAV was introduced as a construct relevant in branding (and branding as a way to compete with other companies). In chapter 2, BAV was defined and related to other constructs. In the current chapter (3), various factors that may contribute to BAV were elaborated upon, and the facilitating role of advertising in adding information to the brand was discussed. Although BAV seems an important construct in marketing, little or no theoretical and empirical research has been conducted on BAV. Below, three research questions are formulated, which will be addressed in chapters 4, 5, and 6.

Because BAV is a construct that has not been researched in depth yet, the first question to be addressed is how BAV may be measured. In chapter 4, an operational definition of BAV is given, and BAV is measured for different brands. In this, the reliability and the validity of a measurement instrument for BAV is determined. A second research question relates to (possible) differences in MBAV between product classes. Of particular interest here is the question of whether there are differences in MBAV between product classes, and - if so - to which factors these differences may be ascribed (see section 3.1). In chapter 5, this research question is examined further. A third research question focuses on the influence of advertising on BAV. Of particular interest here are the questions of whether advertising is able to influence BAV, and - if so - what type of advertising (informational or transformational) fits what kind of product (predominantly search or predominantly experience), best (see section 3.3.5). In chapter 6, this research question is examined further.

Resuming, the three research questions to be tested in this thesis are:

1. How can the BAV-construct be operationalized, and what is the reliability and validity of this operationalization?
2. To what degree do differences in MBAV exist between product classes, and which factors may contribute to such differences? In answering this research question propositions 3.1 through 3.4, and proposition 3.6 will be focused on.
3. To what extent does advertising influence BAV, and what factors may moderate a possible effect? In answering this research question propositions 3.17a and 3.17b will be focused on.

Chapters 4, 5, and 6, will deal with these three research questions, in the order given. In chapter 7, the results found will be summarized and integrated.

PART II

EMPIRICAL STUDIES

CHAPTER 4
DEVELOPING AND TESTING A METHOD FOR MEASURING BRAND-ADDED VALUE

In the previous chapters, a theoretical framework of brand-added value (BAV) was established. In this framework, in addition to the construct itself, the constructs that overlap with BAV and the factors that may contribute to BAV were elaborated upon. At this point, the question must be addressed as to how BAV can be operationalized and measured for a set of brands within a product class. For this reason, the focus is on developing a measurement instrument for BAV, and on discussing several of the characteristics of such an instrument. In so doing, the first research question formulated in section 3.5 will be addressed: 'How can the BAV-construct be operationalized, and what is the reliability and validity of this operationalization?'. To determine the reliability and validity of the measurement method, an empirical study was conducted. In answering the research question, first the operationalization and the measurement method of BAV is described in section 4.1. In that section, specific problems in operationalizing and measuring BAV are discussed including the way the reliability and validity of the measurement instrument for BAV is determined. In section 4.2, the method used in this empirical study is described. In section 4.3, the results of this study with respect to the reliability and validity of the measurement instrument for BAV are reported. In section 4.4 follows a discussion and a summary of these results, in which conclusions are drawn on how to measure BAV in further research.

4.1 The operationalization and the measurement method of brand-added value

In this section, the focus is on an operational definition of BAV. A measurement instrument for BAV has been developed on the basis of this operational definition. Subsequently, specific problems that may arise in using this measurement instrument are discussed. Finally, the question of the reliability and the validity of the measurement instrument for BAV is addressed.

An operational definition of BAV

In section 2.2, BAV was seen to be invoked by an extrinsic cue; the brand name (BN). It also became clear that BAV is part of the perceived value of the extrinsic cues. In section 2.2, the following BAV definition was to be found:

> *The brand-added value of a branded article is the contribution of the brand name and its related connotations to the consumer's valuation of the (total) branded article.*

In elaborating upon constructs that overlap with BAV, it was concluded that - in using the BAV-construct - the focus is on separating the value of the BN from the value of the total brand. Thus, in operationalizing BAV, care has to be taken that the part that the BN contributes to the consumer's valuation of the total branded article is separated from that of the value of the total brand. Here, it is proposed that BAV be measured by subtracting the physical value of a brand from the value of the total branded article. The operational definition of BAV is as follows:

> *The brand-added value of a branded article is the difference in a consumer's preference between the brand with, and the brand without its brand name.*

Thus, the only thing that has to be manipulated in measuring a brand's BAV, is the BN (respectively, absent or present). In practice, BAV is measured by letting consumers judge a brand with, and without, BN. The difference between these measures reflects the BAV-score of a consumer for a brand (i.e. brand score minus blind score). Usually, BAV will be determined for a group of consumers. The operationalization of BAV for a group of subjects is expressed in formula 4.1.

$$BAV_j = \left[\sum_{i=1}^{n} (BRAND_{ij} - BLIND_{ij}) \right] / n \qquad (4.1)$$

In which: BAV_j : BAV-score of brand j (measured over n subjects);
$BRAND_{ij}$: brand score of subject i for brand j;
$BLIND_{ij}$: blind score of subject i for brand j.

Gensch (1978) and Lavenka (1989) demonstrate the influence of the BN on consumers' evaluations of a product. Both authors report on studies in which the BN significantly influenced the consumer's valuation of product

alternatives[1]. Thus, it is to be expected that, for many branded articles, brand and blind scores will differ (resulting in positive or negative BAV-scores). Now that an operational definition of BAV has been given, the time has come to discuss the measurement method employed in the measurement of BAV.

The measurement method for BAV

In section 2.3, it was stated that the BAV-construct is closely related to the construct 'attitude towards the brand', and that BAV is in fact an 'attitude towards the BN'. It was seen that attitudes may be measured either uni- or multidimensionally, and that multidimensional measures are usually based on expectancy-value models. Above, BAV was operationalized in a uni-dimensional way. Two considerations motivate this choice:

1. Often, the influence of a BN is not a rational factor in the consumer decision-making process (especially for low-involvement products, affect may overrule cognition). Expectancy-value models, however, assume that consumers form their attitudes in a reasoned way. So, a (multidimensional) expectancy-value model will not represent BAV in a valid way.
2. One research question formulated in section 3.5, concerned the measurement of BAV in different product classes. The attributes relevant for determining the magnitude of BAV (MBAV) may differ for each product class. Now, if BAV is to be operationalized in a multidimensional way, it is quite possible that the attributes selected within a product class will not cover all the aspects of MBAV for that product class. As a consequence, it may be difficult to compare MBAV between product classes. In applying a uni-dimensional approach, this problem is avoided because BAV is then determined as a holistic concept.

In accordance with the operational definition given above, BAV will be determined by subtracting the physical value of a brand from the value of the total branded article (i.e. the brand score minus the blind score). These brand and blind scores are based on consumer evaluations of the product alternative as a whole (i.e. uni-dimensional) with respectively, the BN present and with the BN absent. In practice, BAV is measured by letting consumers judge the same set of brands with and without BN.

1: Gensch (1978) reports on a study on images of commercial beverages. Lavenka (1989) reports on a study on perceived product quality using lotions and tissues.

If a BAV-score is determined in accordance with formula 4.1, the brand and blind scores have to be measured on an interval or ratio level (because subtraction is only allowed on scores of these levels). Thus, ordinal scales (like Likert scales) are not appropriate here. Therefore, BAV will be measured by using the technique of magnitude estimation (Stevens, 1975; Moskowitz, 1977). Magnitude estimation scores are assumed to be of a ratio level. In a study using magnitude estimation scaling, Lavenka (1989) concludes that this technique is useful for measuring both intrinsic product quality, and the influence of the BN on perceived quality. In line with this reasoning, magnitude estimation may also be used to administer the brand and the blind score of a brand.

In measuring BAV by means of a magnitude estimation task, subjects will judge product alternatives in comparison with a reference stimulus. The reference stimulus is one of the brands for which the BAV-scores are measured. The value of the reference stimulus is fixed, and may be expressed in different measurement units. In the empirical study reported in this chapter, two measurement units were used: numbers and line lengths. The method of magnitude estimation may be illustrated here by the measurement unit 'line lengths' (in section 4.2, the measurement unit 'numbers' is described in more detail). For the measurement unit 'line lengths', subjects had to draw lines in which they were requested to express differences in preferences between product alternatives by differences in line lengths. In this task (which will be referred to as 'the task of drawing lines'), the value for the reference stimulus was a line length of 50 millimetres. For each product alternative presented, the subject had to indicate to what extent his preference was greater or smaller (or the same) than his preference for the reference stimulus. If for one alternative his preference was greater than his preference for the reference stimulus, he could indicate this by drawing a line longer than 50 millimetres on the answer sheet. For a smaller preference, the line had to be shorter than 50 millimetres. In accordance with this procedure, subjects judged the same set of product alternatives with BNs and without BNs, separately.

Specific problems in operationalizing BAV

If BAV is measured according to the operational definition given above, two problems have to be taken in to consideration. The first problem relates to salient distinguishing intrinsic cues which are part of the physical product.

In determining the blind score of a brand, subjects may infer the BN on the basis of these cues (this holds especially for design / style). So, in determining the blind score of a brand, these distinguishing intrinsic cues have to be omitted, to avoid recognition by the subject. This implies, that - in determining the value of the total branded article - these distinguishing intrinsic cues also have to be omitted (because the only thing that is supposed to be manipulated is the BN; viz. BN present or BN absent). For example: if the BAV-scores of various brands of automobiles have to be administered, subjects may recognize a BN in a blind test on the cue design / style. By *not* giving subjects information on this cue in the blind test, the design / style of automobiles cannot influence the blind scores. Consequently, information on design / style should also be omitted in the branded test. However, in the branded test, the BN may invoke associations of design / style for a specific brand (i.e. the BN functions as a summary construct). As a consequence, these cues may influence the value of the total branded article, although information on these cues is omitted from the test. Thus, if a salient distinguishing intrinsic cue is omitted from the test, that cue cannot influence the blind score of a brand, but it may influence the brand score of that brand. One should however realize, that this may only happen if information on a cue is invoked by the BN. This should be kept in mind when interpreting BAV-scores.

The second problem that one may come across, relates to the order in which subjects judge product alternatives. If subjects first judge the branded product alternatives, and subsequently the blind product alternatives, subjects may recognize the brand in the blind test. Consequently, subjects may adjust their blind scores to their brand scores. If blind scores are adjusted to brand scores, BAV-scores approach zero. However, if blind product alternatives are judged before branded product alternatives, this unwanted effect is most likely not to happen. In subsequent sections, this problem is addressed empirically and will be referred to as 'the order of presentation'.

Reliability and validity of the measurement instrument for BAV

Above, the focus has been on the way BAV is operationalized and on how BAV may be measured for a set of brands within a product class. If BAV is determined in accordance with formula 4.1, one may wonder whether this results in reliable and valid scores. To answer these questions - and to answer questions on the order of presentation - an empirical study was im-

plemented. In section 4.3, several methods are discussed that check the reliability and the validity of the measurement instrument for BAV. Reliability concerns the *random* error component of the measurement instrument, and it can be determined by methods based on single measurements or by methods based on repeated measurements. Single measurements focus on internal consistency (i.e. the split-half method), or on item consistency / homogeneity (i.e. the method based on item analysis). Repeated measurements focus on non-specificity (i.e. the parallel test), or on stability (i.e. test - retest) (Drenth, 1980 p.203 ff). In checking the reliability of the measurement instrument for BAV, the main aim was consistency and stability (see section 4.3.2). Reliability being a necessary - but not sufficient - condition for validity, reliability is discussed before validity. Validity concerns the *systematic* error component of the measurement instrument. The nomological validity of BAV has already been discussed in section 2.3 ('constructs that overlap with brand-added value'). In section, 4.3.3, results on convergent and content validity checks are reported with respect to the brand scores, and results on convergent and face validity checks are reported with respect to the BAV-scores. But first, section 4.2, in which the method employed in the empirical study is described.

4.2 Method employed in the empirical study

In this section, the measurement instrument for BAV is further elaborated upon. Subsequently, the design and the procedure of the study is described, followed by a description of the subjects who participated in the experiment. Finally, an illustration is given of how the BAV-scores were computed on the basis of two tables.

Measurement instrument

In section 4.1, it was concluded that BAV can be administered by applying the method of magnitude estimation. In this study, magnitude estimation involves the use of two different measurement units: numbers and line lengths. Below, these measurement units are referred to according to the tasks subjects performed: respectively, 'assigning numbers' and 'drawing lines'. These different methods of scoring may result in differences in reliability. One may state that assigning numbers is a more rational way of scoring, whereas drawing lines engages the feelings. The task involving

drawing lines has already been explained in section 4.1. For the task involving assigning numbers, the value for the reference stimulus was 100. If for one alternative a subject's preference was greater than his preference for the reference stimulus, he could indicate this by assigning a value greater than 100 to this product alternative. For a smaller preference, the value must be smaller than 100. Subjects were asked to differentiate clearly between stimuli (thus, differences in preferences were to correspond to differences in numbers and line lengths). Each subject judged the product alternatives both with and without BN.

In addition to the magnitude estimation task, a paired comparison task was administered. This task was administered to check whether subjects are consistent in their preferences. In the paired comparison task, subjects had to compare pairs of product alternatives and state their preference for one of the two alternatives. In this, subjects were instructed to choose one of the two alternatives, even if they found it difficult to make a choice (thus, a forced choice). In section 4.3.2, the results of this task are presented to check the degree of consistency (consistency is an aspect of reliability).

Design of the study

In section 4.1, it was stated that BAV is based on the difference between the brand and the blind score of a brand. It was also made clear that the order of presentation may influence the BAV-scores. To verify (or falsify) this assumption, two conditions were created for the magnitude estimation task:

1. A condition in which subjects first judged a set of brands with BN, and subsequently judged the same set of brands without BN. Hereafter, this condition will be referred to as 'condition 1'.
2. A condition in which subjects first judged a set of brands without BN, and subsequently judged the same set of brands with BN. Hereafter, this condition will be referred to as 'condition 2'.

To determine the reliability of the scores, a retest was administered two weeks after the test procedure. For the paired comparison task, four conditions were created (hereafter these four conditions that relate to the paired comparison task will be referred to as 'groups'[2]). The four groups of subjects fulfilled different paired comparison tasks: one group judged beers with BN, another group judged beers without BN, a third group judged com-

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2: So that the reader may not confuse the conditions of the magnitude estimation task with the conditions of the paired comparison task.

puters with BN, and one group judged computers without BN. The total number of subjects was divided into four groups because it was practically impossible for a subject to perform more than one paired comparison task.

Procedure

In the experiment, subjects had to judge eight product alternatives in the form of beers, and eight product alternatives in the form of personal computers. All brands of beer were nationally distributed brands (A- and B-brands), containing five percent alcohol, fermented only once, and had about the same appearance in terms of colour[3]. All brands of computers had a random access memory (RAM) of 512 or 640 Kb, an INTEL (8086 / 8088) or VEC (V20) processor, and 3.5" or 5.25" floppy disk drives. Product alternatives for both beers and computers were offered to the subjects twice: with and without BN. Subjects were asked to judge the beers by tasting them (without swallowing them). The same subjects were also asked to judge computers by comparing descriptions on standard and optional features; these descriptions were given with or without a BN. In appendix 1, exhibit 1, a translated description of one brand of computer is included. Subjects who were not familiar with the features listed, could find a key to each feature on a card. On these cards, the standard and optional features of the computers were explained in plain terms. Where BNS were absent, product alternatives were labelled by a letter (ranging from A to H). In a pilot study, 20 students were asked to state their preferences for the eight brands of beers and personal computers. Brands with a medium preference were used as reference stimuli in the magnitude estimation tasks (i.e. the brand 'Brand' for beers, and the brand 'Philips' for computers).

Before brand and blind scores were measured, subjects filled out a questionnaire with relevant personal details. An exercise was administered by way of practice for the magnitude estimation task. In this exercise, subjects had to estimate the area of seven squares (labelled B to H) in comparison to a reference square (labelled A). The sides of these squares differed from 4 to 15½ centimetres. In the task of assigning numbers, the reference square (A) had a fixed value of 100. In the task of drawing lines, a line length of 50 millimetres was given for the reference square (A). Subjects were asked to estimate differences in areas between each square (B to H) and the refer-

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3: The colours of the beers varied from 5 to 9 on the colour-scale of the European Brewery Convention (EBC) (source: Vlam, 1987).

ence square (A). Subsequently, they were asked to represent this difference - in a value and a line length - for each square separately. Differences in numbers, and differences in line lengths, should reflect differences in areas between two squares. In these tasks, subjects were not allowed to use a ruler, or any other aid.

After this exercise, each subject rated eight product alternatives of beers, and eight product alternatives of personal computers, according to degree of preference. The method of scoring was the same as in comparing the areas of the squares. The product alternatives were presented with and without BN in separate sets. Thus, the blind scores of each product class were adinistered separately from the brand scores. The methods of scoring varied between groups: two groups judged product alternatives in the order 'assigning numbers - drawing lines'. The other two groups judged product alternatives in the order 'drawing lines - assigning numbers'. Finally, subjects performed a paired comparison task for either beers with BN, beers without BN, computers with BN, or computers without BN. In the paired comparison task, subjects judged all 28 pairs of product alternatives. In table 4.1, an overview is given of the various tasks the subjects performed in the test setting. In this table, the two conditions are denoted by a number (i.e. 1 or 2). The four paired comparison task groups are denoted by a number and a letter (i.e. 1^a, 1^b, 2^a, and 2^b). In the retest, the exercise task with the squares and the paired comparison task were omitted. At the end of the retest, subjects filled out a questionnaire on their beer consumption, and on their experiences with personal computers.

Subjects

Above, two conditions in the magnitude estimation task were distinguished, and four groups of subjects in the paired comparison task were distinguished. In total, 120 subjects participated in the empirical study. Each subject was randomly assigned to one of the four paired-comparison task-groups, resulting in 30 subjects per group. Two of these paired-comparison task-groups formed one condition, resulting in 60 subjects for each condition. All the subjects who participated in the experiment were undergraduate or graduate students. From these 120 students, 12 were female. These female students were evenly divided over the four groups. The subjects ranged in age from 18 to 28 years. Most subjects had had experience with brands in both product classes:

Table 4.1: Overview of the tasks performed by the subjects in the test.

Condition	Task[4]	Stimuli	Brand name	Order / method
1a	MET	squares	--	with -
	MET	beers	present	without BN
	MET	computers	present	
	MET	beers	absent	assigning numbers
	MET	computers	absent	- drawing lines
	PCT	beers	present	
1b	MET	squares	--	with -
	MET	beers	present	without BN
	MET	computers	present	
	MET	beers	absent	drawing lines -
	MET	computers	absent	assigning numbers
	PCT	computers	present	
2a	MET	squares	--	without -
	MET	beers	absent	with BN
	MET	computers	absent	
	MET	beers	present	assigning numbers
	MET	computers	present	- drawing lines
	PCT	beers	absent	
2b	MET	squares	--	without -
	MET	beers	absent	with BN
	MET	computers	absent	
	MET	beers	present	drawing lines -
	MET	computers	present	assigning numbers
	PCT	computers	absent	

4: 'MET' refers to magnitude estimation task; 'PCT' refers to paired comparison task.

1. 118 Subjects indicated in the questionnaire that they had drunk beer in the past year (113 of them regularly drank beer at home).
2. 109 Subjects indicated that they had operated a computer in the past year; 69 indicated having (a) personal computer(s) of their own.

Computation of BAV-scores

Each subject judged eight brands of beer, and eight brands of computers. Subjects judged these brands:
- with, and without a BN (i.e. brand vs blind);
- by assigning numbers, and by drawing lines;
- in both a test, and a retest setting.

This resulted in 2 x 2 x 2 = 8 variables per product class. The values for all variables were imported in individual data matrices, like the one shown in table 4.2 for subject # 1 on judging beers. At the top of the table, labels are given for each variable (brand vs blind, numbers vs lines, and test vs retest). Each variable comprises eight scores for every subject (one score for each brand). As can be seen, the brand scores and the blind scores for the first brand (top row) are always 100 (assigning numbers) or 50 (drawing lines). This is so, because this brand was used as a reference stimulus in

Table 4.2: Data matrix of magnitude estimation scores for subject # 1 on eight different brands of beer ('Numb.' stands for numbers).

Brand	Brand Numb. Test	Blind Numb. Test	Brand Numb. Retest	Blind Numb. Retest	Brand *Lines* Test	Blind *Lines* Test	Brand *Lines* Retest	Blind *Lines* Retest
A	100	100	100	100	50	50	50	50
B	110	95	90	90	50	60	43	59
C	90	110	80	100	42	53	39	65
D	90	90	90	100	40	46	44	61
E	120	110	110	90	62	56	57	49
F	110	110	120	90	59	48	55	44
G	115	90	90	100	55	46	49	57
H	105	90	90	110	48	51	45	54

Table 4.3: Data matrix of magnitude estimation scores for subject # 1 on eight different brands of beer. The difference from table 4.2, is that BAV-scores are inserted in separate columns ('Numb.' stands for numbers).

Brand	Brand Numb. Test	Blind Numb. Test	BAV Numb. Test	Brand Numb. Retest	Blind Numb. Retest	BAV Numb. Retest	Brand Lines Test	Blind Lines Test	BAV Lines Test	Brand Lines Retest	Blind Lines Retest	BAV Lines Retest
A	100	100	0	100	100	0	50	50	0	50	50	0
B	110	95	15	90	90	0	50	60	-10	43	59	-16
C	90	110	-20	80	100	-20	42	53	-11	39	65	-26
D	90	90	0	90	100	-10	40	46	-6	44	61	-17
E	120	110	10	110	90	20	62	56	6	57	49	8
F	110	110	0	120	90	30	59	48	11	55	44	11
G	115	90	25	90	100	-10	55	46	9	49	57	-8
H	105	90	15	90	110	-20	48	51	-3	45	54	-9

the magnitude estimation task. BAV-scores are calculated by subtracting the blind scores from the brand scores (in accordance with formula 4.1). For each subject, four BAV-scores were computed for each brand (for assigning numbers and drawing lines, in a test and a retest setting). In table 4.3, these resulting BAV-scores are inserted in the individual data matrix for subject # 1. Now that the method of the empirical study has been described, the results of this study will be reported.

4.3 Results of the empirical study

In this section, the focus will be on the results of the empirical study. Most of the results reported below are based on data from the test. The data from the retest are only used to determine the reliability of the various variables. In section 4.3.1, the question of whether the order of presentation influences the BAV-scores (i.e. condition 1 vs condition 2) is addressed. In section 4.3.2, the results of the reliability checks with respect to the measurement of BAV are reported on. In section 4.3.3, the results of the validity checks on the measurement instrument for BAV are described.

4.3.1 The order of presentation

In the previous section, two conditions in measuring BAV were distinguished for both beers and computers:

1. Condition 1, in which subjects judged product alternatives in the order 'with BN - without BN'.
2. Condition 2, in which subjects judged product alternatives in the order 'without BN - with BN'.

In condition 1, subjects may recognize the brand in the blind test on specific (salient) distinguishing intrinsic cues. Consequently, a subject may adjust his blind scores to the brand scores. In condition 2, this effect is unlikely to occur. So, it is to be expected that in condition 1 the difference between brand and blind scores will be smaller than in condition 2. In other words: it is to be expected that the BAV-scores will be smaller in condition 1 than in condition 2 (after all, BAV represents the difference between brand and blind scores). To verify this expectation, the absolute values of BAV-scores were compared between conditions by means of an analysis of

variance (ANOVA), taking beers and computers separately. The independent variables of the ANOVA are:

1. A variable referring to both conditions in the study (i.e. condition 1 vs condition 2). Below, this variable will be referred to as 'COND'. This variable was manipulated between subjects.
2. A variable referring to the BAV-scores of the eight brands incorporated in the study. Below, this variable will be referred to as 'BRAND'. This variable was manipulated within subjects.

If the order of presentation has an influence on the BAV-scores, the COND variable should result in a significant effect. If the height of the BAV-scores differs between brands, the BRAND variable should register a significant effect. In appendix 1, tables 1a and 1b, the results of four ANOVAS are reported (for assigning numbers and drawing lines, for both beers and computers). For both beers and computers, the factor COND has no significant effect on the BAV-scores, for both ways of scoring. The factor BRAND does appear to have an effect on the BAV-scores for both beers and computers and for both ways of scoring. Here, all F-statistics are statistically significant at the $p \leq 0.01$ level. Regarding beers, there is no interaction effect between the two independent factors (i.e. COND x BRAND). However, with respect to computers, a weak interaction effect is found for the task drawing lines ($F=1.91$; $df=7$; $p=0.07$). Additional t-tests showed that this interaction effect is caused by one brand. For this brand, the average absolute BAV-score is significantly greater in condition 2, than in condition 1. For this brand, the branded test may have influenced the blind test, due to the fact that the brand could have been recognized by the extensive software that was delivered with it. In conclusion it is stated that the order of presentation has, at most, a very small effect on the BAV-scores. Only in the case where distinguishing intrinsic cues are salient, are the brand scores likely to influence the blind scores (and only if the branded test precedes the blind test). In the light of this result, no further distinction will be made between condition 1 and condition 2 in the analyses reported below. Thus, all analyses reported below that concern magnitude estimation task data, are based on 120 subjects. In these analyses, differences in the order of presentation may be regarded as counter-balancing.

4.3.2 Reliability

In this section, two methods of reliability checks are to be discussed. One method focuses on consistency (i.e. the paired comparison task), whereas the other method emphasizes the stability of the scores (i.e. the test - retest). The results of both methods are reported in the order given.

Consistency

Usually, (internal) consistency is determined by administering a split-half method or through a method that is based on item analysis. As a uni-dimensional scale is being used to measure BAV, there are no separate items. However, the paired comparison task may also function as a method to determine the consistency of judging product alternatives. Specifically, the paired comparison task focuses on the question of whether subjects are able to discriminate between product alternatives. Two questions must be answered here (David, 1963 p.21):

1. Has the judge been consistent in his preferences?
2. Are there significant differences between the objects?

To quote David:

> *It is important to realize that these questions are closely related; for if there is no difference between the objects the judge cannot reasonably be expected to be consistent, while it is easy for him to be consistent if the differences are great.*

The second question mentioned above will be addressed first.

In table 4.4, the results of the paired comparison task are given. For this task, each subject was assigned to one of four groups: one group judged beers with BNS, another group judged beers without BNS, a third group judged computers with BNS, and one group judged computers without BNS (see table 4.1). For each subject, a coefficient of consistency (gamma) was computed (David, 1963 p.23). This coefficient ranges from 0 (the subject has not been consistent in stating his preferences; there is no consistency at all) to 1 (the subject has been completely consistent). Inconsistency is also called 'intransitivity', or is referred to as the existence of circular triads (gamma is a function of the number of circular triads). The first part of table 4.4 contains aggregate data, in which the (perceived) equality of the objects is tested (David, 1963 p.38). The null hypothesis runs that all objects are perceived as equal; the alternative hypothesis runs that all objects

are *not* perceived as equal. The mean gamma is tested by using the test statistic D_n; the standardized sum of squares of the scores (formula 4.2) (David, 1963 p.38).

$$D_n = 4 \left[\sum_{i=1}^{t} a_i^2 - \tfrac{1}{4} t n^2 (t-1)^2 \right] / n t \qquad (4.2)$$

D_n follows an approximate chi-square distribution with t-1 degrees of freedom[5], and is based on the number of preferences for each stimulus (a_i), among others. If D_n exceeds or equals the critical value, the null hypothesis should be rejected. For beers / BN present, computers / BN present, and computers / BN absent, the null hypothesis is rejected at the $p \leq 0.01$ level. For beers / BN absent, the null hypothesis is rejected at the $p \leq 0.05$ level.

Table 4.4: Aggregate and individual results of the paired comparison task for beers and computers. For each group, N=30.

	Beers		**Computers**	
	BN present	*BN absent*	*BN present*	*BN absent*
Aggregate data				
- gamma (mean)	0.82	0.57	0.93	0.86
- D_n	33.43***	16.57**	100.43***	95.20***
Individual data				
- $p \leq 0.01$	n=18	n= 7	n=28	n=22
- $p \leq 0.05$	n= 7	n= 5	n= 1	n= 6
- $p \leq 0.10$	n= 3	n= 7	n= 0	n= 1
- $p > 0.10$	n= 2	n=11	n= 1	n= 1

**: $p \leq 0.05$; ***: $p \leq 0.01$ (two-tailed; df=7).

5: 't' Represents the number of objects (i.e. brands; here: 8).

So, for all four categories differences are found between the objects. However, for beers / BN absent, the significance of these differences is less marked than in the other three categories. Even so, we may state that subjects are able to be consistent in their preferences for beers / BN present, computers / BN present, and computers / BN absent.

The second part of table 4.4, contains individual data, which may be used to answer the question of whether the subjects were consistent in their preferences (David, 1963 p.21-23). The null hypothesis runs that a subject makes his judgments at random. If so, the subject is not consistent in his preferences (circular triads exist). The alternative hypothesis runs that a subject's judgments are consistent (circular triads do not exist). In table 4.4 (lower part), the number of subjects are listed who could consistently judge the objects for a certain α (denoted by 'p'). So, for beers / BN present, 18 subjects were able to judge the objects consistently at the $p \leq 0.01$ confidence level (for each group, N=30). For computers, there is little doubt about it, that subjects can fulfil this task consistently for both BN present and BN absent. For beers, this holds when subjects are aware of the BN, but it does not hold when they have to judge the beers without knowing the BN. From these paired comparison data we conclude that it is difficult for subjects to discriminate beers on their taste alone. However, subjects can discriminate between beers when they are aware of the BN. Judging the computers was a more cognitive task, in which the subjects had something to hang on to (the information was presented to them in writing).

Stability

Stability coefficients (r_{xx}) are based on the correlation of test and retest data (see Drenth, 1980 p.207-210). In box 4.1, the way mean correlation coefficients were computed is described. In tables 4.5a and 4.5b, the stability coefficients are compared between both methods of scoring: assigning numbers vs drawing lines for both beers and computers[6]. For beers, it appears that the task of drawing lines is more reliable than the task of assigning numbers. For the brand and the BAV-scores, this difference in reliability is significant at the $p \leq 0.05$ level. However, the blind scores show no significant difference; moreover, the stability coefficients for these scores are

6: In a few cases, a correlation coefficient could not be computed for a subject, because the subject did not differentiate in brand scores between test and retest. The t-tests reported in tables 4.5a and 4.5b are based on z-scores.

Box 4.1: The computation of mean correlation coefficients

For each subject, correlation coefficients were computed over eight brands, resulting in 120 correlation coefficients for brand, blind and BAV-scores. Correlation coefficients are of ordinal level, which implies that means may not be computed on these data. Due to this shortcoming, mean correlation coefficients were computed according to the procedure described by Rosenthal (1984). Following this procedure, each correlation coefficient is transformed into a z-score, in accordance with 'Fisher's r to z transformation' (see Hays, 1981 p.465). These z-scores are assumed to be of interval level, and to be normally distributed. On the basis of these (120) z-scores, a mean z-score was computed, which was transformed again into a correlation coefficient (in accordance with Fisher's r to z transformation).

rather low compared to the brand scores. The low stability coefficients for the blind scores suggest that subjects had difficulty in judging beers on taste alone. For computers, the task of assigning numbers is more reliable for the brand and blind scores, whereas the task of drawing lines is more reliable for the BAV-scores. However, none of these differences are statistically significant. For both the brand and the blind scores, the stability coefficients are satisfactorily high, whereas the stability coefficients of the BAV-scores are low. One should however realize, that the BAV-score is a difference score, which may be characterized by a relatively high variance. In fact, the variance of the BAV-scores is dependent on both the variance of the brand and the blind scores, and the covariance of the brand and the blind scores. The total variance of BAV is expressed in formula 4.3.

$$\text{VAR(BAV)} = \text{VAR(BRAND)} + \text{VAR(BLIND)} - 2\ \text{COV(BRAND,BLIND)} \qquad (4.3)$$

(in which 'VAR' refers to variance, and 'COV' to covariance). In general, the variance of the BAV-scores will be higher than the variance of the brand and the blind scores, unless the covariance of the brand and the blind scores is high.

Recapitulating on the reliability of the magnitude estimation scores, it may be stated on the basis of the stability coefficients, that the task of drawing lines is somewhat more reliable than the task of assigning numbers. It may

Table 4.5a: Stability coefficients indicating the reliability of the task of assigning numbers and the task of drawing lines for *beers*. For each pair of coefficients, t-values are given with their level of significance (N=120).

Beers	Assigning numbers	Drawing lines	t-value
Brand scores	0.72***	0.77***	-2.08**
Blind scores	0.20***	0.24***	-0.70
BAV-scores	0.32***	0.41***	-2.21**

For the stability coefficients: ***: $p \leq 0.01$ (testing differences from zero) (one-tailed; for the brand scores, df=117; for the blind and the BAV-scores, df=118). For the t-values: **: $p \leq 0.05$ (two-tailed; for the brand scores, df=118; for the blind and the BAV-scores, df=119).

Table 4.5b: Stability coefficients indicating the reliability of the task of assigning numbers and the task of drawing lines for *computers*. For each pair of coefficients, t-values are given with their level of significance (N=120).

Computers	Assigning numbers	Drawing lines	t-value
Brand scores	0.72***	0.70***	1.12
Blind scores	0.68***	0.65***	0.89
BAV-scores	0.25***	0.27***	-0.35

For the stability coefficients: ***: $p \leq 0.01$ (testing differences from zero) (one-tailed; for the brand scores, df=117; for the blind and the BAV-scores, df=118). None of the t-values are statistically significant beyond the $p \leq 0.10$ level (two-tailed; for the brand scores, df=118; for the blind and the BAV-scores, df=119).

also be concluded that the stability coefficients of the brand and blind scores corroborate the results on consistency. For beers / BN absent (see table 4.4) - which corresponds to the blind scores in table 4.5a - the consistency appeared to be questionable. The weak stability of these scores confirm the poor reliability of the blind scores for beers.

4.3.3 Validity

Below, the focus will be on the validity of the brand scores and the BAV-scores. Because the brand scores are an important element for the BAV-scores, specific attention is being paid to these brand scores. In section 4.3.3.1, both the convergent and content validity of the brand scores are discussed in which these scores are contrasted with the blind scores. In section 4.3.3.2, the convergent and the face validity of the BAV-scores will be discussed.

4.3.3.1 Validity of the brand scores

For the brand scores, two checks on convergent validity and one check on content validity were employed. Below, these checks on validity are discussed in the order given.

Convergent validity

The convergent validity of the brand scores was checked using two methods:

1. The data accrued from both methods of scoring on the magnitude estimation task were compared with each other[7] (i.e. assigning numbers vs drawing lines).
2. The data from the magnitude estimation task were compared with the data from the paired comparison task.

The convergent validity based on both methods of scoring was determined by computing Pearson correlation coefficients between the task of assigning numbers and the task of drawing lines. In computing mean correlation coefficients, the procedure described in box 4.1 was followed. In table 4.6,

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7: Comparing both methods of scoring may also be labelled as a check on reliability (a so-called 'parallel test'). One condition that should be met for a parallel test, is that the standard deviations of both tests are the same (Drenth, 1980 p.203). Unfortunately, the standard deviations for the task of assigning values are greater than the standard deviations for the task of drawing lines.

these mean correlation coefficients are given for beers and computers[8]. For beers, the correlation coefficients for the brand scores are satisfactorily high. For the blind scores these coefficients are lower, although they are high compared to the stability coefficients (see table 4.5a). This may be explained by the fact that both methods of scoring were administered one after the other. So, it must have been easier for a subject to be consistent in both methods of scoring, than to be consistent in the test and retest setting. For computers, the correlation coefficients for both brand and blind scores are satisfactorily high.

Table 4.6: Mean Pearson correlation coefficients between magnitude estimation scores for the task of assigning numbers and for the task of drawing lines, for beers and computers (N=120).

	Beers	**Computers**
Brand scores	0.87***	0.92***
Blind scores	0.51***	0.87***
BAV-scores	0.64***	0.72***

***: $p \leq 0.01$ (testing differences from zero) (one-tailed; df=118).

As a second check on convergent validity, the data from the magnitude estimation task were related to the data from the paired comparison task. In doing so, the preferences of the product alternatives from the paired comparison data were correlated with the relevant magnitude estimation scores for each individual[9]. The preferences (resulting from the paired comparison task) are of ordinal level, and were recoded to rank order data (so that a high preference, became a low number in rank order). The magnitude estimation scores were also transformed to rank order scores per individual.

8: The results of table 4.6 regarding the BAV-scores are discussed further below.

9: For the paired comparison task, each subject was assigned to one of four groups (see tables 4.1 and 4.4). One group judged beers with BNs, another group judged beers without BNs, a third group judged computers with BNs, and one group judged computers without BNs.

For each subject, a Spearman rank order correlation coefficient was computed; mean correlation coefficients were computed in accordance with the method described in box 4.1. In table 4.7, these mean correlation coefficients are presented for each group. The convergent validity of the magnitude estimation scores for beers with BN is satisfactory. However, the magnitude estimation scores based on judging beers without BN hardly correlate at all with the rank orders from the paired comparison task. This again may be an indication that subjects are not able to judge beers in a consistent way, at least not on the basis of taste alone. Consequently, convergent validity is lacking for these scores. The convergent validity of the magnitude estimation scores for computers (with and without a BN) is satisfactory. Here, all correlation coefficients differ in a statistically significant way from zero ($p \leq 0.01$).

Table 4.7: Mean Spearman rank order correlations between data from the paired comparison task and the magnitude estimation task (N=30).

	Beers		**Computers**	
	BN present	*BN absent*	*BN present*	*BN absent*
Assigning numbers	0.77***	0.22	0.80***	0.68***
Drawing lines	0.71***	0.21	0.69***	0.64***

***: $p \leq 0.01$ (testing differences from zero) (one-tailed; df=28).

Content validity

Another check to determine the validity of the brand scores concerns the brands subjects use in different situations. For this, subjects were asked questions that relate to the following situations:

1. What brand of beer they usually drink at home, and what brand of beer they would buy when organizing a party.
2. What brand of computer they use at home, and what brand of computer they have experiences with in other situations (e.g. lecture rooms).

Here, we label this check on validity as content validity, although one may also label it as concurrent validity[10]. The answers to these questions were related to the brand and the blind scores of the magnitude estimation task. In this, it was assumed that the brands subjects use have relatively high magnitude estimation scores.

Regarding the handling of the magnitude estimation scores, the eight brands were rank ordered for each subject according to their height of brand scores. In this, the brand with the highest brand score was given rank number 1, and the brand with the lowest brand score rank number 8. From the answers to the questions it was determined what brand of beer, and what brand of computer subjects use in different situations. Subsequently, the position was determined of the rank order those brands held in each subject's magnitude estimation hierarchy. In this respect, subjects are expected to assign a high brand score to the brand they use at home or use in the other situation. If there is no relationship between the brand scores and the brands subjects use, the mean rank order position should lie halfway between position 1 and position 8 (i.e. 4½). However, it is to be expected that the brand a subject uses has a rank number below 4½. To check this expectation, sign tests were employed on these data[11]. In appendix 1, in tables 2a/b and 3a/b, the procedure and results of these tests are reported for beers and computers, respectively. In tables 4.8a and 4.8b, the results on these checks of content validity are summarized by reporting mean rank order scores for beers and computers, respectively. From these tables, one may derive that for beers, for example, it appears that the brand subjects use at home holds a mean rank order in subjects' magnitude estimation hierarchy of 3.45 (for the task of assigning numbers). The more a mean rank

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10: In *content validity*, one is interested whether the measurement instrument is representative for the universe of the property being measured (Green et al., 1988 p.250; Kerlinger, 1986 p.417). In the analysis reported here, the magnitude estimation scores are related to subjects' uses and experiences with beer and computer brands in different situations. So, we try to determine to what content the magnitude estimation scores refer (i.e. whether they represent uses and experiences of brands in different situations). Concurrent validity is a dimension of criterion validity (Green et al., 1988 p.251), and 'is characterized by *prediction* to an outside criterion' (Kerlinger, 1986 p.419) (emphasis added). In the analysis reported here, we are not interested in predicting the brand and blind scores, but more in determining to which situations the magnitude estimation scores refer.

11: In fact, a sign test for large samples was employed with a correction for continuity (in accordance with Siegel and Castellan, 1988 p.80 ff).

order score approaches 1, the higher the magnitude estimation score of the brands that are used by subjects in a specific situation. The same procedure was followed for the blind scores, so as to contrast with the results of the brand scores.

Table 4.8a: Results of a check on content validity of brand and blind scores for *beers*. The data represent mean rank order scores in subjects' magnitude estimation hierarchies for the brand they use in different situations.

Beers	**Brand used at home**		**Brand bought for party**	
	Numbers	*Lines*	*Numbers*	*Lines*
Brand scores	3.45***	3.22***	3.28***	3.10***
Blind scores	4.35	4.61	4.21*	4.53

*: $p \leq 0.10$; ***: $p \leq 0.01$ (one-tailed). Based on a sign test; see appendix 1, tables 2a/b.

Table 4.8b: Results of a check on content validity of brand and blind scores for *computers*. The data represent mean rank order scores in subjects' magnitude estimation hierarchies for the brand they use in different situations.

Computers	**Brand used at home**		**Experiences other brands**	
	Numbers	*Lines*	*Numbers*	*Lines*
Brand scores	2.65***	2.78***	3.81***	3.74***
Blind scores	3.73***	4.00*	4.62	4.20

*: $p \leq 0.10$; ***: $p \leq 0.01$ (one-tailed). Based on a sign test; see appendix 1, tables 3a/b.

For beers, the brand scores from the magnitude estimation task correspond significantly to both situations of use. However, these brand scores correspond more strongly to the brand subjects would buy when organizing a party than to the brand subjects use at home. The blind scores hardly show any relationship at all with either of the two situations. Only for the task of assigning numbers, is there a weak relation to be found for the blind scores with the brand subjects buy when organizing a party. For computers, the brand scores from the magnitude estimation task correspond significantly to both situations of use. Here, the brand scores correspond most to the brand subjects use at home. Even for the blind scores, the magnitude estimation scores correspond to this situation of use (although to a lesser extent). Probably subjects were so familiar with the characteristics of the brand they use at home, that they also assigned high scores to the blind product alternatives solely on the basis of information on these characteristics.

To recapitulate on the validity of the brand scores, both checks on convergent validity showed satisfactory results. Regarding the blind scores for beers, the check on convergent validity that linked the data from the magnitude estimation task with the data from the paired comparison task, showed that the validity of these scores is poor (as was the case with the reliability of these scores). As already concluded above, the content validity of the brand scores is satisfactory for both beers and computers. Now that several checks on the validity of the brand scores have been presented, let us turn to the validity of the BAV-scores.

4.3.3.2 Validity of the BAV-scores

Regarding the BAV-scores, two checks on the convergent validity and one check on the face validity of these scores were employed. Below, these checks on validity are reported in this order.

Convergent validity

Two checks on the convergent validity of the BAV-scores were employed:

1. The data of both methods of scoring from the magnitude estimation task were compared with each other (viz. assigning numbers vs drawing lines).
2. A direct question for BAV in the questionnaire was related to the BAV-scores of the magnitude estimation task.

The first check on convergent validity was determined by computing Pearson correlation coefficients between BAV-scores for both methods of scoring. Mean correlation coefficients were computed in accordance with the procedure described in box 4.1. In table 4.6, the mean correlation coefficients of the BAV-scores were reported for beers and computers. For both beers and computers, these correlation coefficients are satisfactorily high. The correlation coefficient for beers is, however, lower than the correlation coefficient for computers. This is probably due to the relatively low correlation coefficient for the blind scores of beers.

A second check on convergent validity was determined for the BAV-scores by means of the questionnaire. In the questionnaire, the subjects had to indicate which BN adds - in their opinion - the most value to the product. The question for beers was phrased as follows (translated from Dutch):

> *The brand name of a brand of beer may add a certain value to the product, possibly causing you to rate a certain brand more highly than another brand. Choosing from the eight brands listed below, which brand name do you think adds the greatest value to the product?*

For computers, a similar question was included in the questionnaire. After each question, the eight BNS from each product class were listed; subjects were allowed to choose one BN for beers and one BN for computers. Subse-

Table 4.9: Results of a check on convergent validity of BAV-scores for beers and computers. The data represent mean rank order scores in subjects' magnitude estimation hierarchies for the BN they assign the highest value to.

	Beers		**Computers**	
	Assigning numbers	*Drawing lines*	*Assigning numbers*	*Drawing lines*
BAV-scores	3.40***	3.25***	3.64***	3.50***

***: $p \leq 0.01$ (one-tailed). Based on a sign test; see appendix 1, table 4.

quently, it was determined per subject which position the chosen BN held in each subject's magnitude estimation hierarchy. Again, this position may vary from 1 to 8, in which 1 reflects the highest rank order. In appendix 1, table 4, the frequencies of these positions are reported for both beers and computers. A sign test was employed to determine whether the chosen BN's held relatively high positions in subjects' magnitude estimation hierarchies. In table 4.9, the data from appendix 1, table 4 are summarized by means of mean rank order scores of the chosen brands. In all cases, the data from the questionnaire confirm the convergent validity of the BAV-scores from the magnitude estimation task.

Face validity

A final check on validity concerns the face validity of the BAV-scores. In table 4.10a and 4.10b, the eight brands of beer and the eight brands of computers are listed in ascending order of BAV[12]. In both tables, all average scores are based on the task of drawing lines[13] from the test (i.e. not from the retest).

In interpreting the findings of tables 4.10a and 4.10b, it must be remembered that the data underlying these average BAV-scores were gathered in the period 1988-1989. Due to changes in advertising strategies and other factors, a current (similar) study might furnish quite different results. One should also realize that the subjects were students, and that these results are not representative for the Dutch population as a whole. The remarks made below, are a subjective interpretation on the part of the author, and serve only as an illustration. For beers, the BAV-scores range from -4.54 for the brand Bavaria to 10.54 for the brand Grolsch. The low score for the brand Bavaria may be explained by the fact that at that time, the advertising broadcast by Bavaria showed older people relaxing after work with a glass of Bavaria beer. This image of older public may have failed to invoke the right associations with younger public (students). So, the associations evoked by advertising may have detracted from BAV (see proposition 3.18). The low BAV-score gained by Ridder may be explained by the fact that this brand was not well-known on the Dutch market (there had been no previous

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12: For beers, the BAV-scores were equated to the brand scores minus 50. The reason for this, is that the reliability of the blind scores appeared to be low. In section 4.4, this topic is further elaborated upon.

13: On the basis of the results on stability, this task is preferred to the task of assigning values. In section 4.4, this topic is further elaborated upon.

national advertising campaigns). Here, the saying 'unknown, unloved' may be the explanation (proposition 3.8b). The BAV-scores of the brands Amstel and Dommelsch are positive, but they are not impressively high. Probably, subjects perceived these brands of beer as ordinary, and having a somewhat working-class image. One might, however, have expected the brand Brand to have had a higher BAV-score, resulting from associations of craftsmanship. The high position of Heineken may be explained by the high level of BN-awareness (proposition 3.8b), and by the striking way it is advertised. The high BAV-score of Hertog Jan may be explained by its various line extensions (like triple-brewed beer and stout). These line extensions may have contributed to the BAV of that brand. Probably, subjects perceived this brand of beer as rather special. Finally, we may conclude that Grolsch reflects 'uniqueness' through its packaging (see proposition 3.9). In contrast to other brands, Grolsch uses old-fashioned stoppered bottles secured by clamps and communicates in this way that it is different from other brands as well as emphasizing its long history. The face validity of the rank order of the brands of beer is high. Only the relative position of the brand Brand deviates from what one might expect.

Table 4.10a: Average magnitude estimation scores for eight brands of beer. The brands are listed in ascending order of BAV-scores (the brand 'Brand' is the reference stimulus). Standard errors are given in parentheses (N=120).

Beers	Brand score	Blind score	BAV-score
1. Bavaria	45.46 (1.60)	54.85 (1.94)	-4.54 (1.60)
2. Ridder	45.73 (1.83)	52.25 (2.00)	-4.27 (1.83)
3. Brand	50.00 (0.00)	50.00 (0.00)	0.00 (0.00)
4. Amstel	52.66 (1.82)	53.80 (2.01)	2.66 (1.82)
5. Dommelsch	52.87 (1.94)	54.29 (2.14)	2.87 (1.94)
6. Heineken	57.47 (1.84)	51.43 (1.90)	7.47 (1.84)
7. Hertog Jan	57.58 (2.33)	52.63 (1.86)	7.58 (2.33)
8. Grolsch	60.54 (2.08)	52.50 (1.84)	10.54 (2.08)

For computers, the BAV-scores range from -10.25 for the brand Kangaroo to 4.69 for the brand Olivetti. The low BAV-score for Kangaroo may be explained by the fact that the BN was not very well-known. Also, this name may invoke improper associations for computers (proposition 3.8a). The name Vendex was well known to the Dutch market, and has its origin in a department-store chain. Although the BN is well known, this BN probably did not invoke the right associations for computers (note that the blind score for this computer is the highest of all eight brands). The BAV-score of Atari is also negative. Atari was at that time well known for its games' computers; probably subjects perceived the BN as being unsuitable for personal computers. The brand associations of Atari may have referred to fun and leisure. In other words: the brand associations of the parent brand (i.e. game computers) did not contribute to the extended brand (i.e. personal computers) (proposition 3.19). In using Aaker's terminology, we may refer to this as 'the bad' of brand extensions (Aaker, 1990). The BAV-score of Amstrad is also negative. The fact that the BN was not very well known, may have detracted from the BAV-score. At the time of the study, the BN Laser was not very well-known on the Dutch market either. The semantic associations however seem to fit computers; at least the BN hardly

Table 4.10b: Average magnitude estimation scores for eight brands of computers. The brands are listed in ascending order of BAV-scores (the brand 'Philips' is the reference stimulus). Standard errors are given in parentheses (N=120).

Computers	Brand score	Blind score	BAV-score
1. Kangaroo	52.98 (1.74)	63.23 (1.93)	-10.25 (2.19)
2. Vendex	67.10 (2.41)	72.92 (2.55)	-5.82 (1.97)
3. Atari	46.03 (1.31)	51.33 (1.73)	-5.30 (1.54)
4. Amstrad	53.58 (1.79)	57.79 (1.79)	-4.21 (1.77)
5. Laser	57.25 (1.71)	57.27 (1.67)	-0.02 (1.76)
6. Philips	50.00 (0.00)	50.00 (0.00)	0.00 (0.00)
7. Tulip	61.68 (1.88)	58.74 (1.84)	2.93 (1.92)
8. Olivetti	63.40 (2.23)	58.71 (2.02)	4.69 (2.00)

derogates from BAV. The brand Philips holds a relatively high position, which may be explained by the confidence the BN radiates. By origin, Philips is a Dutch brand, and in general consumers tend to prefer brands made in their own country (see box 3.2); the same applies to Tulip. The BN clearly stresses the Dutch heritage, and it may radiate associations of innovativeness. Here, one may conclude that the Juliet principle pushed the Joyce principle aside (proposition 3.8a). The brand Olivetti holds the highest BAV-score. Although the BN clearly stresses the Italian heritage, it is doubtful whether this caused the high BAV-score. For the students involved in the empirical study, Olivetti computers was a very familiar brand, because their lecture rooms were equipped with this brand of computers. The face validity of the hierarchy of computer BNS is high. Especially the brands with a high level of BN-awareness and substantial market shares have high BAV-scores. Brands with a low level of BN-awareness and brands that are extensions of related products, have low BAV-scores.

To recapitulate on the validity of the BAV-scores, the two checks on convergent validity appeared to be satisfactory. The face validity of these scores corroborate this finding. In section 4.4, the results found are discussed.

4.4 Concluding remarks on how to measure brand-added value

In the preceding section, the results of the empirical study were described. This study was set up to test several aspects of the measurement instrument for BAV. Below, the implications of the results for measuring BAV will first be elaborated upon. Finally, specific conclusions will be formulated on how to measure BAV in further research.

The implications of the results found

In section 4.3.1, it was concluded that the order of presentation does not significantly affect the BAV-scores. Although there appeared to be no statistically significant effect, one should take care that salient intrinsic cues are omitted in measuring both the brand and the blind score. To conclude in measuring BAV, the brand and blind scores can be administered irrespective of their order if salient intrinsic cues are omitted from the test. One problem however needs to be solved: what is to be done with the blind scores if these scores appear to have a low reliability? (like for beers).

The results of the paired comparison task had already shown clearly that subjects have difficulty in discriminating between blind product alternatives of beers (see table 4.4). The results on the stability coefficients corroborated the results of the paired comparison task (table 4.5a)[14]. In computing the BAV-scores for beers, one should therefore be cautious in subtracting the blind from the brand scores. After all, the blind scores contain a great deal of random error. If subjects are really unable to discriminate between blind product alternatives, one may also equate the BAV-score with the brand score. In such cases, the blind scores for all brands are equalled to the value of the reference stimulus. Then, the BAV-score may be determined in accordance with formula 4.4.

$$BAV_j = \left[\sum_{i=1}^{n} (BRAND_{ij} - C) \right] / n \qquad (4.4)$$

In which: C: the value of the reference stimulus in the magnitude estimation task (for the task of drawing lines, C=50, and for the task of assigning numbers, C=100)[15].

For computers, the conclusion to be drawn is that BAV may be determined in accordance with formula 4.1, because both brand and blind scores are consistent and stable in time. In table 4.10a (on beers), BAV-scores were reported in accordance with formula 4.4, and in table 4.10b (on computers), BAV-scores were reported in accordance with formula 4.1.

Now, if BAV is to be studied in other product classes, we need to know whether the blind scores may be used in determining the BAV-scores. A test - retest procedure is very time consuming, therefore one might choose to administer a paired comparison task instead (in order to infer the degree of reliability from the degree of consistency). A prerequisite for this, is that one should use a strict criterion for interpreting the D_n statistic. Here, we propose to choose an α for the D_n statistic that is smaller than, or equal to, 0.01. This criterion is based on the results of tables 4.4 and 4.5a listing the blind scores of beers. The data listed in table 4.5a make it clear that the

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14: These findings corroborate the conclusions of Jacoby et al. (1971): 'students *seem* to be able to distinguish between different brands of beers; the results indicate only a weak discriminating ability' (see box 3.1: 'Brand discrimination of predominantly experience goods').

15: For a further interpretation, see formula 4.1.

blind scores are not reliable. However, on the basis of table 4.4, one may conclude that subjects can only discriminate between different blind alternatives of beers to a small extent. Thus, to infer stability from consistency, the α of the D_n statistic should not exceed the value of 0.01. In further research, the rule is adopted that BAV will be computed by subtracting the blind from the brand scores if subjects are able to discriminate between blind product alternatives in a paired comparison task significantly at the $p \leq 0.01$ level. However, if subjects are not able to discriminate between blind product alternatives at the $p \leq 0.01$ level, the BAV-scores will be computed in accordance with formula 4.4.

Section 4.3.3 included a report of the results of validity checks on the brand scores. From the checks on convergent validity, and the check on content validity, the conclusion may be drawn that the brand scores have a high validity for both beers and computers. The reliability and validity of these brand scores is important, because they are an anchor point for the BAV-scores. A salient outcome of the content validity of the brand scores, is that for beers, these scores appear to correspond most strongly to the brand subjects would buy in a 'social context' (i.e. when organizing a party). Expressive cues may therefore play a major role in beer consumption. For computers, the brand scores correspond in most cases most strongly to the brand subjects use at home. Here, functional cues may play a more dominant role. These results make it clear that functional and expressive cues may be related to BAV, or have an influence on the magnitude of BAV. Functional and expressive cues are elaborated upon further in the investigation of 'differences in the magnitude of brand-added value between product classes' (chapter 5).

Taking a look at tables 4.5a and 4.5b once again, it should be noted that the stability coefficients are significantly lower for the BAV-scores than for the brand scores. As already stated, this may be due to the variance of the BAV-scores, which is dependent on both the variance of the brand and the blind scores and the covariance of the brand and the blind scores. In the current study, brand and blind scores were administered in separate sessions, each with their own reference stimulus. Although the reference stimulus was the same product (presented with or without BN), administering branded and blind product alternatives in separate sessions may lead to relatively high variances in BAV-scores. This is more likely to be the case if subjects use

different dimensions in judging branded and blind alternatives. However, if brand and blind scores are administered in one session, the variance of the BAV-scores is most likely to be reduced. Therefore, in further research, brand and blind scores will be administered in one stimulus set. Although the stability coefficients of the BAV-scores are low, the convergent and the face validity of the BAV-scores are satisfactory (see tables 4.6, 4.9, and 4.10a/b). On the basis of the findings of these tables, there seems to be no reason to doubt the reliability and the validity of the BAV-scores.

Finally, a conclusion has to be drawn on the method of scoring in the magnitude estimation task. In table 4.5a (stability coefficients for beers), one can see that the task of drawing lines is more reliable than the task of assigning numbers. For computers (table 4.5b), there are no significant differences between both methods of scoring. Regarding the validity of the brand scores, the validity of the task of assigning numbers is sometimes higher (table 4.7 and partly table 4.8b), whereas in other cases the validity of the task of drawing lines is higher (table 4.8a and partly table 4.8b). With regard to the BAV-scores, the validity of the task of drawing lines is somewhat higher than the task assigning numbers (table 4.9). Mainly based on table 4.5a, the task of drawing lines is favoured in measuring the brand and blind scores in a magnitude estimation task.

Conclusions on how to measure BAV in further research

Recapitulating, it may be stated that in the rest of this thesis BAV will be measured as follows:

1. The brand and blind alternatives will be presented to subjects in one session. Salient distinguishing intrinsic cues will be omitted from both the branded and the blind test.
2. A paired comparison task will be administered to infer the stability of the blind scores. If the D_n statistic is statistically significant at the $p \leq 0.01$ level, BAV-scores will be determined in accordance with formula 4.1. However, if the D_n statistic is not significant at this level, BAV-scores will be determined in accordance with formula 4.4.
3. With regard to the magnitude estimation task, the task of drawing lines will be used in measuring the brand and the blind scores.

In using the task of drawing lines, subjects judged product alternatives according to degree of *preference*. Based on preference, BAV-scores differed between brands. The question that now comes to mind is whether these dif-

ferences in preferences can be translated in differences in prices consumers are willing to pay. In fact, this question concerns the price consumers are willing to pay for the value added to a product by a brand. Instead of administering a magnitude estimation task by drawing lines, one may also administer a magnitude estimation task by a so-called 'dollar-metric' procedure. In a dollar-metric task, subjects can be asked how much they are prepared to pay for a product alternative in comparison to a reference stimulus. In chapter 5, BAV will also be measured by administering a dollar-metric task. The results of this task will be used as a check on the concurrent validity of the task of drawing lines.

At this point, we may state that we have a reliable and valid measurement instrument for BAV. In the next chapter the focus will be on differences in sensitivity to BAV between different product classes. In measuring BAV in different product classes, the results of the current chapter will most certainly be taken into account.

CHAPTER 5
DIFFERENCES IN THE MAGNITUDE OF BRAND-ADDED VALUE BETWEEN PRODUCT CLASSES

In the previous chapter, a measurement instrument for brand-added value (BAV) was developed and tested for reliability and validity. On the basis of an empirical study, several conclusions were drawn on the relevant factors for measuring BAV. In the current chapter, the focus will be on differences in the occurrence of BAV between product classes. Below, this difference in the occurrence of BAV between product classes will be referred to as 'differences in the magnitude of BAV (MBAV) between product classes'. Besides concentrating on differences in MBAV between product classes, the focus will also be on characteristics of product classes that may explain possible differences in MBAV between product classes. In subsequent sections, an empirical study is described that was conducted to find differences in MBAV between product classes. In this study, propositions were tested that refer to MBAV (i.e. propositions 3.1 through 3.4, and proposition 3.6 of chapter 3). In section 5.1, the operationalization of MBAV is elaborated upon, and the research questions of the empirical study are formulated. In section 5.2, the method used in the study is described, followed by section 5.3, where the results of this study are reported. This chapter is concluded by section 5.4, in which the results on differences in MBAV between product classes are analysed and discussed.

5.1 The operationalization of the magnitude of brand-added value

In this section, the focus is on the operationalization of MBAV. Subsequently, the research questions that relate to MBAV are discussed.

The operationalization of the magnitude of BAV

In chapter 3, the concept of MBAV was introduced. In the introduction to that chapter, it was stated that some product classes may be more sensitive to BAV than other product classes. These differences in the sensitivity to BAV were referred to as differences in the magnitude of BAV between product classes. Thus, the question to be answered here, is how to determine differences in the sensitivity to BAV between product classes. To answer this

question one must start from formula 4.1. On the basis of this formula, one can state that a BAV-score of a brand approaches zero if the judgments on the branded and the blind product alternative differ very little. If judgments on branded and blind product alternatives differ very little for all brands within a product class, one can state that this product class is insensitive for BAV. Thus, in such a product class the brand name (BN) has no significant influence on judgments of the branded product alternatives. If, however, the BN does have a significant influence on judgments of the branded product alternatives, the judgments on the branded and the blind product alternatives may differ substantially. Such differences may be positive, but also negative. In other words: BAV may contribute to the value of a brand, but BAV may also derogate from the value of a brand. So, in operationalizing MBAV, the focus is on *the degree* to which BAV emerges (i.e. both in a positive and negative sense). In practice this means that, in determining MBAV for a product class, the *absolute* BAV-scores of a sample of brands are averaged. Thus, regarding the BAV-scores, both positive and negative deviations from zero may contribute to MBAV. Formula 5.1 expresses how MBAV is operationalized.

$$MBAV_k = \left[\sum_{j=1}^{t} |BAV_{jk}| \right] / t \qquad (5.1)$$

In which: $MBAV_k$: the magnitude of BAV for product class k;
$|BAV_{jk}|$: the absolute value of the BAV-score of brand j in product class k;
t : the number of brands within product class k used to determine the magnitude of BAV.

Recapitulating on the operationalization of MBAV within a product class, it is stated that:

1. MBAV is low, if brand and blind scores differ very little for the brands within a product class.
2. MBAV is high, if brand and blind scores differ significantly for the brands within a product class.

After this operationalization of MBAV, the time has now come to discuss the research questions and hypotheses that relate to MBAV. In section 5.2 and further, the focus is on the empirical study that was set up to test the hypotheses.

Research questions

In section 1.1, the idea of differences in MBAV between product classes was introduced under the title 'applicability of branding'. Based on Levitt (1980) and Murphy (1990), one can conclude that a brand strategy may result in strategic and financial benefits in any product class. However, in practice, brand strategies are not being applied in all product classes. In section 3.1, the applicability of branding was elaborated upon further under the title 'factors that explain the magnitude of BAV within product classes'. Here, factors that relate to the potency of BAV, and factors that relate to the actualization of BAV were distinguished. In factors that relate to the potency of BAV, five factors were distinguished (see propositions 3.1 through 3.5). Not all of the relevant factors can be manipulated in an empirical study; therefore two factors were chosen on which the design of the current study was based:

1. The factor 'predominantly functional vs predominantly expressive cues' (i.e. proposition 3.2).
2. The factor 'durable vs fast-moving consumer goods' (i.e. proposition 3.4).

Both factors were chosen because they are frequently used by advertising and marketing practitioners. The second factor mentioned is also one of the oldest factors used in marketing for classifying products (see Franzen, 1988 p.29 ff; Kotler, 1991 p.433). Although these propositions are taken as a starting point, three other propositions will also be addressed:

1. Proposition 3.1 on predominantly search vs predominantly experience cues. In chapter 2, this factor was elaborated upon. A major conclusion was that BAV is more important for products with predominantly experience cues than for products with predominantly search cues.
2. Proposition 3.3 on consumer involvement. Regarding consumer involvement, it was concluded that highly-involved consumers put more effort into comparing brands on intrinsic cues. Hence, the influence of the BN (an extrinsic cue) diminishes, and MBAV is most likely to be low for products that invoke high consumer involvement. In the current study, involvement has been operationalized on the basis of 'personal relevance'.
3. Proposition 3.6 on the actualization of BAV. Regarding the actualization of BAV, two factors were distinguished: the concentration of supply within the market, and the vividness of competition within the market. It is assumed that a high concentration of supply and / or a low vividness

of competition within a market corresponds to a low degree of MBAV. In the current study, advertising expenditures within product classes are used as a measure for the vividness of competition within a market. In fact, these expenditures should be expressed as a percentage of the total turnover within a product class; turnover data were, however, not available. Nevertheless, one may argue in favour of using advertising expenditure data, because they reflect the amount of communication consumers are exposed to.

Regarding the propositions mentioned above, five hypotheses on MBAV were formulated. **Hypothesis 1** refers to functional and expressive cues (i.e. proposition 3.2) and runs as follows:

> *The magnitude of brand-added value is higher for products that have predominantly expressive cues than for products that have predominantly functional cues.*

Hypothesis 2 refers to durable and fast-moving consumer goods (i.e. proposition 3.4) and runs as follows:

> *The magnitude of brand-added value is higher for fast-moving consumer goods than for durable consumer goods.*

Hypothesis 3 refers to search and experience cues (i.e. proposition 3.1) and runs as follows:

> *The magnitude of brand-added value is higher for products that have predominantly experience cues than for products that have predominantly search cues.*

Hypothesis 4 refers to personal relevance (i.e. proposition 3.3 on consumer involvement) and runs as follows:

> *The magnitude of brand-added value is higher for products that are characterized by a low personal relevance than for products that are characterized by a high personal relevance.*

Hypothesis 5 refers to the differences in advertising expenditures between product classes (i.e. proposition 3.6 on the vividness of competition within a market) and runs as follows:

> *The magnitude of brand-added value is higher for product classes that have high advertising expenditures than for product classes that have low advertising expenditures.*

In the following section, the focus is on the method of the empirical study that was set up to test these hypotheses.

5.2 Method of the empirical study

In chapter 4, the measurement instrument for BAV was described in detail; in the current section, first a small extension of this measurement instrument is given. Subsequently, the design and the procedure of the study are described, followed by a description of the subjects who participated in the study. Finally, an illustration is given of how the MBAV-scores for one product class were computed.

Measurement instrument

In the previous chapter, it was concluded that BAV can be administered by applying the method of magnitude estimation, and by using the task of drawing lines. In the current study, a dollar metric task was also employed (this task was already referred to at the end of chapter 4). This dollar metric task will be used as a check on the concurrent validity of the task of drawing lines. The procedure for the task of drawing lines was the same as in the previous study. In the dollar metric task, subjects were asked how much they were prepared to pay for a product alternative in comparison to the branded reference stimulus. In this task, the value of the reference stimulus was the average price of that brand as registered in various local stores. For each product alternative, subjects had to indicate to what extent they were willing to pay a higher or a lower (or the same) price than the price given for the reference stimulus. As can be observed, the dollar metric task is also based on the principle of magnitude estimation.

Besides these two magnitude estimation tasks, paired comparison tasks were administered to check whether subjects were consistent in their preferences. In the previous empirical study, it appeared that consistency may be lacking if subjects judge product alternatives without a BN. So, in the current empirical study, paired comparison tasks were only administered for the blind product alternatives of each product class. Based on the results of a paired comparison task one may infer the stability of the blind magnitude estimation scores. In the paired comparison task, subjects were forced to choose one of two alternatives (i.e. a forced choice procedure).

Design of the study

As mentioned in section 5.1, the design of the empirical study was based on two factors that relate to the potency of BAV:

1. Predominantly functional vs predominantly expressive cues.
2. Durable vs fast-moving consumer goods.

Crossing these two factors results in a 2 x 2 table. Three product classes were selected for each cell of this table. In box 5.1, a description is given of how a sample of product classes was drawn from which the actual product classes for this study were selected. In table 5.1, the twelve product classes selected for measuring BAV, are listed.

Table 5.1: The twelve product classes selected for measuring BAV.

	Predominantly functional	**Predominantly expressive**
Durable consumer goods	Coffee-makers, Frying-pans, Washing machines	Shoes, Automobiles, Watches
Fast-moving consumer goods	Milk, Eggs, Sweeteners	Lipstick, Women's magazines, Cigarettes

Judging product alternatives from twelve product classes would be too long a task for the subjects. Therefore, three groups of subjects were created. Each group judged product alternatives from four product classes (one product class from each cell of table 5.1). So, product classes within each cell were always judged between subjects, whereas product classes from different cells may be judged within subjects. Within each group, the order of presentation of the product classes was completely balanced. Thus, in analysing the results, no attention will be paid to this order of presentation.

Within each product class, brands had to be selected for determining their BAV-scores. After making an inventory of available brands in local retail outlets, each brand was classified into one of three price segments (i.e. a high, a moderate, and a low price segment). Subsequently, from each price segment two brands were randomly selected, resulting into six brands for each product class. In appendix 2, table 1, the BNS of all 72 brands that were selected for the study are listed.

Box 5.1: Classifying and choosing product classes

Deciding whether a product class can be classified as a durable or as a fast-moving consumer good, is generally an undisputed task. However, deciding whether a product class can be classified as having predominantly functional or expressive cues, may be a disputed task. In order to classify product classes as either functional or as expressive, a small study was conducted. First, 10 product classes of durable consumer goods and 10 product classes of fast-moving consumer goods were chosen. In choosing these product classes, efforts were made to cover variations between product classes as much as possible. Subsequently, 10 faculty members were asked to rank the durable consumer goods according to their degree of functional vs expressive cues (ties were not allowed). The faculty members were asked to do the same for the fast-moving consumer goods[1]. For both classes of products, it was determined to which degree the judges agreed on their rank orders. In appendix 2, tables 2a and 2b, the rankings for the product classes on the degree of functional vs expressive cues are given for durable and fast-moving consumer goods, respectively. For durable consumer goods, Kendall's coefficient of concordance (W) is 0.52 ($p \leq 0.01$; $df=9$) (average $r_s=0.47$). For fast-moving consumer goods, W is 0.82 ($p \leq 0.01$; $df=9$) (average $r_s=0.80$)[2]. Thus, for both types of product classes, judges tended to agree on what they label as either functional or expressive. For both durable and fast-moving consumer goods, the product classes with the most extreme means of rank orders were classified as either functional or expressive and were selected for the study (3 product classes at each extreme for both durable and fast-moving consumer goods). In total, 12 product classes were selected for the study.

1: The 10 durable consumer goods are: automobiles, women's novels, shoes, bikes, watches, coffee-makers, microwave ovens, pans, ball-point pens, and washing machines. The 10 fast-moving consumer goods are: mineral water, women's magazines, eggs, make-up, milk, ladies hosiery, (creamery) butter, cigarettes, sugar, and bars of soap. The faculty members were asked to depart from the perspective of female consumers, who were chosen as subjects for this empirical study (see under 'subjects').

2: W may vary from 0 to 1, and expresses the percentage of explained variance (i.e. the amount to which judges agree). An approximate test for Kendall's coefficient of concordance (W) is given by chi-square (Hays, 1981 p.606 ff). The 'average r_s' stands for the mean Spearman rank order correlation, which is here the mean of the 45 pairs of rank orders. Kendall's coefficient of concordance (W) is closely related to the average r_s.

Procedure

Above, it was stated that the order of presentation of the product classes was balanced. This resulted in 4! = 24 different orders. Based on this number, two subjects were assigned to each order. So, 2 x 24 = 48 subjects were assigned to each group. Each group of 48 subjects judged product alternatives from four different product classes (i.e. one product class from each cell; see table 5.1):

1. Subjects in group 1 judged product alternatives for milk, lipstick, coffeemakers and shoes.
2. Subjects in group 2 judged product alternatives for eggs, women's magazines, frying-pans and automobiles.
3. Subjects in group 3 judged product alternatives for sweeteners, cigarettes, washing machines and watches.

Subjects judged the product alternatives by:

1. The product alternatives themselves: milk, eggs, sweeteners, lipstick and cigarettes (sweeteners were dissolved in water).
2. A description of the product alternatives: women's magazines, coffeemakers, washing machines and automobiles[3].
3. Photographs of the product alternatives: frying-pans, shoes and watches.

In a pilot study, 20 women were asked which of the six brands in each product class they preferred. Brands with a medium preference were used as reference stimuli in the magnitude estimation tasks. For the paired comparison task, and for the judgement of the blind product alternatives in the magnitude estimation task, the BNS of the product alternatives were masked.

The subjects who were willing to participate in the experiment were invited to come over to the university. First, the subjects received oral instructions on the various tasks. Subsequently, subjects completed an exercise task for the magnitude estimation task (for the method of drawing lines). In this task, the subjects were asked to estimate the area of five squares, as compared with that of a reference square[4]. The sides of these squares differed from 5½ to 15½ centimetres. After this exercise task, the subjects fulfilled the magnitude estimation tasks. For each product class, the task of drawing lines and the dollar metric task were administered. In each magnitude esti-

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3: In describing the product alternatives, all mention of salient distinguishing intrinsic cues was avoided (in accordance with the conclusions of chapter 4).

4: This task resembles the exercise task reported in section 4.2. In the current study, the number of squares is, however, limited to six.

mation task, the branded and the blind product alternatives were presented to the subjects in one session. After these magnitude estimation tasks, subjects filled out a questionnaire giving their personal details. Subsequently, two paired comparison tasks were administered. From a group of 48 subjects, 24 subjects carried out a paired comparison task for two of the four product classes. The other half of the subjects fulfilled a paired comparison task for the other two product classes (so, for each paired comparison task, N=24). Finally, the subjects filled out a questionnaire that contained several questions relating to their experiences with the brands in question.

Subjects

The interest here lies in the question of whether differences in MBAV occur between product classes. Women are probably the largest population buying branded articles, and they compare and buy different brands every day. With these considerations in mind, women were selected as subjects for the current study. Potential subjects were randomly selected from a panel of a market research agency in Rotterdam. This panel was compounded in 1988 on the basis of a call for subjects in local newspapers. The panel contained almost six hundred names and addresses of men, women and children. Women were invited by telephone to participate in the study. The participating women were offered a reward of Dfl. 30,=; the test took about one hour and ten minutes. In appendix 2, table 3, the demographic characteristics of the three groups of women are given[5]. There are no statistically significant differences between the three groups of subjects on any of these demographic characteristics.

Computation of MBAV-scores

Now, it will be illustrated how MBAV was determined for a product class (i.e. lipstick) by applying formula 5.1. In table 5.2, the brand, the blind and the BAV-scores are listed for six brands of lipstick (these scores are averages computed over 48 subjects). To determine the MBAV-score for lipstick, the absolute values of all six BAV-scores were added up. Subsequently, this sum of absolute values (i.e. 44.58) was divided by the number of brands (6). The result is a MBAV-score of 7.43 for the product class of lipstick. The same procedure was applied for all twelve product classes. In section 5.3, the focus is on the results of the empirical study.

5: These demographic characteristics are: age group, civil status, family size, income bracket and educational level.

Table 5.2: An illustration of how MBAV was determined for the product class of lipstick (the scores are based on the task of drawing lines).

Lipstick	Average brand score	Average blind score	Average BAV-score
Jil Sander	54.92	45.87	9.04
Lancôme	66.81	56.12	10.69
Revlon	58.40	50.73	7.67
Max Factor	50.00	50.35	-0.35
Estée Lauder	58.75	42.98	15.77
Jade	46.46	45.40	1.06
Sum of absolute values:			44.58

$\mathbf{MBAV}_{\mathbf{lipstick}} = 44.58 / 6 = 7.43$

5.3 Results of the empirical study

In this section, a report on the results of the empirical study is given. In section 5.3.1, the results of the reliability of the blind scores (specifically the consistency of these scores), and the concurrent validity of the brand scores, the blind scores, and the BAV-scores are given. In section 5.3.2, the focus is on the order of the product classes with respect to the height of MBAV. In that section, the results of the task of drawing lines are compared with the results of the dollar metric task. In section 5.3.3, a report is given of the results gained by testing the five hypotheses that were formulated in section 5.1. The results will be discussed in section 5.4.

5.3.1 Reliability and validity

In this section, the results of the paired comparison tasks are reported first. Below, these results are presented as a check on the reliability of the magnitude estimation scores (specifically the consistency of the blind scores). Subsequently, the magnitude estimation scores between both ways of scoring are compared and are presented as a check on concurrent validity.

Reliability: the consistency of the blind scores

In the current empirical study, paired comparison tasks were employed on blind product alternatives to check the consistency of these scores. At the end of chapter 4, it was concluded that one may infer stability from consistency by using the results of a paired comparison task. In the previous study, it appeared that if the value of α for the D_n statistic of a paired comparison task is equal to, or smaller than, 0.01, the stability of the blind magnitude estimation scores is guaranteed. Then, the BAV-scores within a product class may be determined in accordance with formula 4.1. However, if this criterion is not met, the BAV-scores within a product class should be determined in accordance with formula 4.4. In appendix 2, table 4, the results of the paired comparison tasks are given for the three groups of subjects (for each group, N=24)[6]. Based on the aggregate data, the null hypothesis (stating that all objects are perceived as equal) is not rejected for milk and cigarettes at the $p \leq 0.01$ level. The individual data (which may be used to answer the question 'has the judge been consistent in his preferences?') are in accordance with the aggregate data[7]. From the results of these tests, one may conclude, that consumers cannot adequately distinguish between blind product alternatives for milk and between blind product alternatives for cigarettes. Thus, for these two product classes, BAV-scores are determined in accordance with formula 4.4. For all other product classes, BAV-scores are determined in accordance with formula 4.1.

Concurrent validity: the task of drawing lines and the dollar metric task

The dollar metric task was used as a method to check the concurrent validity of the task of drawing lines. The concurrent validity was determined by computing mean Pearson correlation coefficients between both ways of

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6: For a detailed description of paired comparisons and accompanying test statistics, see section 4.3.2 and David (1963).

7: Here, the individual data cannot be tested at the $p \leq 0.01$ level (David, 1963 p.110).

scoring. The procedure for computing mean correlation coefficients has already been described in box 4.1. The differences between the study reported on in chapter 4 and the current study, are that - in the current study - only six brands were used, and the number of subjects per group was 48 (in the previous study, eight brands were used and 120 subjects participated). In appendix 2, table 5, the mean correlation coefficients for all twelve product classes for the brand, the blind and the BAV-scores are given. For the brand scores, the lowest value of the correlation coefficients is 0.89 (for milk); all other coefficients exceed the value of 0.90. Even for the blind scores the lowest value of the correlation coefficients is 0.84 (for automobiles); all other coefficients exceed the value of 0.90. For the BAV-scores, the lowest value of the correlation coefficients is 0.76; the other coefficients range from 0.78 to 0.90. Concluding, one may state that the concurrent validity of the brand, the blind and the BAV-scores is very high. Now the time has come to turn to the order of the product classes.

5.3.2 The order of the product classes

In table 5.3, the twelve product classes are listed in order of ascending MBAV-scores based on the task of drawing lines. The MBAV-score for each product class was computed in accordance with the illustration given in table 5.2. In this rank order, the results of the paired comparison tasks are taken into account, which implies that for milk and for cigarettes, the BAV-scores are computed in accordance with formula 4.4. From table 5.3, one can derive that coffee-makers have the lowest MBAV-score, whereas lipstick has the highest MBAV-score. It is clear at a glance, that fast-moving consumer goods have higher MBAV-scores than durable consumer goods. In section 5.3.3, the factors that underlie this rank order will be elaborated upon.

Besides MBAV-scores based on the task of drawing lines, MBAV-scores based on the dollar metric task were also computed. In table 5.3, each MBAV-score for the dollar metric task has been expressed in terms of a percentage of the price of the reference stimulus[8]. When the MBAV-scores of

8: The reason for doing so, is because, if one computes MBAV-scores in accordance with formula 5.1, the values of the MBAV-scores for the dollar metric task are strongly influenced by the price level of a product class. For example, the price of an automobile is higher than the price of milk. Consequently, for the dollar metric task, the MBAV-score for automobiles is higher than for milk. This problem was solved by expressing each

Table 5.3: The rank order of product classes with respect to differences in MBAV based on the task of drawing lines.

Rank order of product classes	MBAV-score drawing lines	MBAV-score dollar metric
1. Coffee-makers	1.22	2.89
2. Shoes	2.59	4.38
3. Washing machines	2.60	3.52
4. Watches	2.64	7.19
5. Frying-pans	3.09	6.97
6. Women's magazines	3.17	4.89
7. Sweeteners	3.40	6.46
8. Eggs	3.46	4.71
9. Automobiles	3.58	6.41
10. Milk	3.80	1.82
11. Cigarettes	4.77	6.12
12. Lipstick	7.43	16.58

the dollar metric task are compared with the MBAV-scores based on the task of drawing lines, it can be seen that the differences between both tasks are mainly caused by differences in the positions given to watches, frying-pans, milk, and cigarettes. Watches and frying-pans both show higher MBAV-scores in the dollar metric task than in the task of drawing lines. However, milk and cigarettes (and to some extent, eggs) have higher MBAV-scores in the task of drawing lines than in the dollar metric task. A possible explanation for the latter phenomenon is that subjects knew (or thought they knew) the actual prices of the various brands, and that they adapted their dollar metric scores to these prices. At the time the study was conducted (i.e. the winter of 1989-1990), consumers paid about the same price for all brands of milk on the Dutch market (due to government regulations). Consequently, the subjects were probably not willing to discriminate in dollar

MBAV-score for the dollar metric task in terms of a percentage of the price of the reference stimulus. As all product alternatives were judged in comparison with the price of the reference stimulus, one may use this price as an anchor point.

metric scores for milk. So, milk is more likely to have a lower MBAV-score for the dollar metric task than for the task of drawing lines. The same applies to cigarettes; due to excise duties the prices are mostly the same for the different brands, and vary mainly as a function of quantity differences.

For watches and frying-pans, the opposite effect may have occurred. Subjects probably think that the price differences between brands are high, resulting in vast differences according to the system of scoring used. If the differences between both tasks, and the possible causes of these differences are considered, one might question the suitability of the dollar metric task for determining differences in MBAV between product classes. However, this method can be useful in determining the price consumers are willing to pay for the value that a brand may add to a product *within* the boundaries of a product class. The shortcoming of the dollar metric task for comparing MBAV *between* product classes means that the hypotheses will be tested on the results of the task of drawing lines. At this point, we may remind the reader that the correlation between the task of drawing lines and the dollar metric task is very high for all twelve product classes. This being the case, one may conclude that the covariance of the BAV-scores for both tasks is high, but that the magnitude to which BAV emerges may differ between both tasks.

5.3.3 Testing hypotheses on the magnitude of brand-added value

Below, first the dependent and the independent variables that were used in the analyses are further elaborated upon. Subsequently, the five hypotheses formulated in section 5.1 are tested by means of regression analyses. In these regression analyses, MBAV-scores are used as the dependent variable. Regression analyses were employed on two levels:

1. At the level of the product classes (i.e. one MBAV-score for each product class).
2. At the individual level (i.e. one MBAV-score for each subject).

Before the results of the analyses at these two levels are reported on, let us turn to the independent variables.

The independent variables that may influence the magnitude of BAV

In the regression analyses, five independent variables were used to test hypotheses 1 to 5. These independent variables are:

1. Predominantly functional vs predominantly expressive cues: the product classes were classified for this variable using table 5.1.
2. Durable vs fast-moving consumer goods: the product classes were classified for this variable using table 5.1.
3. Predominantly search vs predominantly experience cues: the product classes were classified on this variable in accordance with the guide-lines formulated in box 5.2. In table 5.4, the actual classification of the twelve product classes for this variable is given.

Box 5.2: The classification of search vs experience goods

The classification of search vs experience goods is based on guide-lines provided by Nelson (1970; 1974), who himself uses the following criteria:

1. Durable consumer goods are usually classified as predominantly search, unless they are characterized by a high ratio of repair expenditures to sales.
2. Fast-moving consumer goods are usually classified as predominantly experience, unless much sampling takes place by consumers.

On the basis of Nelson's classifications, the twelve product classes were classified as listed in table 5.4. The classification of two product classes however need further clarification: watches and women's magazines.

Nelson labels jewellery as 'search', whereas watches are an exception to this rule (these are labelled as 'experience'). The rationale behind this is that watches are characterized by high ratios of repair expenditures to sales. Due to an increase in the supply of brands of watches (especially of Japanese origin), and the introduction of quartz technology, one may, however, nowadays classify watches as 'predominantly search'. Besides the technological improvement of watches (leading to lower ratios of repair expenditures to sales), the attribute 'appearance' has also gained in importance over the last decade[9]. As far as women's magazines are concerned, they fall into the same category as books, which Nelson (1974) classifies as 'experience'. In our study, women's magazines were classified as having predominantly experience cues, and as a fast-moving consumer good (the brands used in the study are all weeklies).

9: For example, the brand Swatch distinguishes itself from competitive brands on the attribute 'appearance'. This attribute may be labelled as a search cue.

Table 5.4: A classification of the twelve product classes with respect to the distinction between predominantly search vs predominantly experience cues (based on Nelson, 1970; 1974).

Product class	**Falls in Nelson's category under**	**Classified by Nelson as**
Automobiles	automobiles	experience
Cigarettes	tobacco	experience
Coffee-makers	hardware	search
Eggs	dairy products	experience
Frying-pans	hardware	search
Lipstick	perfume	experience
Milk	dairy products	experience
Shoes	footwear	search
Sweeteners	sugar	experience
Washing machines	hardware	search
Watches	jewellery	search[10]
Women's magazines	books	experience

4. The degree of personal relevance of a product class: this degree was determined by using data from the questionnaire[11].
5. The total advertising expenditures of 1987, 1988, and 1989[12] within a product class. The empirical study took place in the winter of 1989-1990.

10: Nelson classified watches as predominantly experience. In the current study, watches are classified as predominantly search (see box 5.2).

11: In the questionnaire, subjects were asked how important they thought products from each product class were in their every-day life. They could indicate this on a seven-point scale. This scale ranged from 'this product class is not important for me' (1) to 'this product class is important for me' (7).

12: These rank order data are based on advertising expenditures for all brands within a product class. Thus, these data are not limited to the six brands used in each product class.

In table 5.5, the twelve product classes are listed in order of ascending MBAV-scores (these MBAV-scores have already been given in table 5.3). Furthermore, the product classes are classified under the various independent variables described above.

Table 5.5: An overview of the variables used in the regression analyses.

Product class	**MBAV**	**EXPR**	**FAST**	**EXPE**	**RELE**	**ADV**
Coffee-makers	1.22	0	0	0	4	6
Shoes	2.59	1	0	0	10	1.5
Washing machines	2.60	0	0	0	3	8
Watches	2.64	1	0	0	1	9
Frying-pans	3.09	0	0	0	2	4
Women's magazines	3.17	1	1	1	5	11
Sweeteners	3.40	0	1	1	12	7
Eggs	3.46	0	1	1	8	1.5
Automobiles	3.58	1	0	1	9	12
Milk	3.80	0	1	1	6	3
Cigarettes	4.77	1	1	1	11	10
Lipstick	7.43	1	1	1	7	5

Key to the independent variables:

EXPR: predominantly functional vs predominantly expressive cues (in the analyses we coded functional as 0 and expressive as 1).

FAST: durable vs fast-moving consumer goods (in the analyses we coded durable as 0 and fast-moving as 1).

EXPE: predominantly search vs predominantly experience cues (in the analyses we coded search as 0 and experience as 1).

RELE: the rank order of the degree of personal relevance: the highest number (12) in this column indicates the highest degree of personal relevance.

ADV: the rank order of advertising expenditures for 1987 to 1989 for each product class: the highest number (12) in this column represents the highest advertising expenditure.

It should be noted that the EXPR, FAST and EXPE variables were included in the regression analyses as dummy variables.

Results of the regression analysis on product class level

In the regression analysis on product class level, the dependent variable is the average MBAV-score of each product class (see table 5.5). So, for this analysis the number of observations is 12. In table 5.6, the results of the regression analysis on product class level are listed. The hypotheses specify the direction of the effects, therefore one-tailed p-values are given. In table 5.6, the amount of additional explained variance for each variable is also given (i.e. ΔR^2). Although all other parameters in table 5.6 were determined by entering the five independent variables simultaneously in the regression analysis, ΔR^2 was determined by carrying out a separate so-called 'stepwise' regression analysis. The fact that there are only 12 observations here, means it is difficult to draw many conclusions on the basis of these data. Therefore, the results are merely described here without much discussion. The hypotheses will be tested on the basis of the regression analysis on an individual level.

Table 5.6: Results of a regression analysis with the average MBAV-scores of product classes as the dependent variable (N=12).

Variable	**B**	**SE B**	β	**t-value**	**p-value**	**ΔR^2**
EXPE	1.61	1.92	0.55	0.84	0.22	0.38
EXPR	1.38	0.89	0.48	1.54	0.09	0.08
ADV	-0.14	0.15	-0.32	-0.93	0.81	0.08
RELE	-0.09	0.15	-0.21	-0.58	0.29	0.03
FAST	0.60	1.65	0.21	0.36	0.36	0.01
intercept	3.00	1.23		2.43	0.03	
Total R^2						0.58

In table 5.6, one can see that the FAST variable has no influence on MBAV at all. On the basis of the contradictory results on the amount of explained variance and the p-values, one would expect multicollinearity to disturb an unequivocal pattern. To check for multicollinearity, each independent variable was regressed on all the other independent variables (in accordance with Lewis-Beck, 1980 p.60 ff). If R^2 values approach 1.0, one may

conclude that there is high multicollinearity. Regressing each independent variable on all the other independent variables yield the following results:
- if the EXPR variable is the dependent variable: $R^2 = 0.26$
- if the FAST variable is the dependent variable: $R^2 = 0.78$
- if the EXPE variable is the dependent variable: $R^2 = 0.84$
- if the RELE variable is the dependent variable: $R^2 = 0.45$
- if the ADV variable is the dependent variable: $R^2 = 0.41$.

The regression analyses with FAST and EXPE as dependent variables both result in a high R^2 (the correlation coefficient between both variables is 0.85). In other words: multicollinearity exists. The solution to this problem is to employ two separate regression analyses. In both analyses, either one of both variables was discarded as an independent variable. In table 5.7a, the results of the regression analysis are listed in which the EXPE variable has been discarded. In table 5.7b, the results of the regression analysis are listed in which the FAST variable has been discarded.

Table 5.7a: Results of a regression analysis with the average MBAV-scores of product classes as the dependent variable. The EXPE variable is discarded from the analysis (N=12).

Variable	B	SE B	β	t-value	p-value	ΔR^2
FAST	1.77	0.86	0.61	2.05	0.04	0.35
EXPR	1.37	0.87	0.48	1.57	0.08	0.15
ADV	-0.08	0.12	-0.18	-0.61	0.72	0.02
RELE	-0.03	0.13	-0.06	-0.20	0.42	0.01
intercept	2.56	1.10		2.34	0.03	
Total R^2						0.53

Table 5.7b: Results of a regression analysis with the average MBAV-scores of product classes as the dependent variable. The FAST variable is discarded from the analysis (N=12).

Variable	B	SE B	β	t-value	p-value	ΔR^2
EXPE	2.20	0.96	0.75	2.29	0.03	0.38
EXPR	1.36	0.84	0.47	1.63	0.07	0.08
ADV	-0.16	0.12	-0.38	-1.27	0.88	0.08
RELE	-0.10	0.14	-0.23	-0.70	0.25	0.03
intercept	3.17	1.06		2.98	0.01	
Total R^2						0.57

Based on tables 5.7a and 5.7b, one may state that there is a tendency for products with predominantly expressive cues to result in higher MBAV-scores than products with predominantly functional cues (respectively, p=0.08 and p=0.07). One may also conclude that fast-moving consumer goods have higher MBAV-scores than durable consumer goods (p=0.04). Furthermore, one may conclude that products with predominantly experience cues result in higher MBAV-scores than products with predominantly search cues (p=0.03). Thus far, the data are in line with expectations. Regarding personal relevance, it was expected that a high degree of personal relevance would result in a low MBAV-score. Again, the direction of the relationship is as expected, but is statistically non-significant (respectively, p=0.42 and p=0.25). With regard to the influence of advertising expenditure on MBAV, the opposite pattern is found. It was expected that high amounts of advertising expenditure would be associated with high MBAV-scores. As indicated in tables 5.7a and 5.7b the opposite seems to be true: high advertising expenditure relates to low MBAV-scores (respectively, p=0.72 and p=0.88). In describing the results of the regression analysis on an individual level, the five hypotheses formulated in section 5.1 will be tested.

Results of the regression analysis on an individual level

As the number of observations in the previous analysis was only 12, an additional, more powerful analysis was employed (i.e. on an individual level). In employing a regression analysis on an individual level, MBAV-scores were determined per subject. For this analysis, the number of observations was 48 x 12 = 576 (i.e. MBAV-scores for 48 subjects in all 12 product classes). At this individual level, however, subject-related factors may influence the MBAV-scores. As the MBAV-scores were partially measured within subjects (i.e. group 1, 2, and 3), these individual MBAV-scores were standardized *within* subjects. The RELE variable was also measured per subject. Therefore, in the current regression analysis, the individual scores on this variable are used (in the previous analyses, average RELE-scores per product class were used). Because the RELE-scores were partially measured within subjects (like MBAV), these RELE-scores were also standardized within subjects. In table 5.8, the results of the regression analysis on an individual level are listed; because the hypotheses specify the direction of the effects, one-tailed p-values are reported. In addition, in table 5.8, the amount of additionally explained variance is reported for each variable (i.e. ΔR^2). This amount of additionally explained variance was determined by employing a separate stepwise regression analysis. In comparing the results of tables 5.8 with 5.6, one should note that the amount of explained variance differs to a large extent. This is due to the fact that most of the

Table 5.8: Results of a regression analysis with individual MBAV-scores as the dependent variable (N=576).

Variable	B	SE B	β	t-value	p-value	ΔR^2
EXPE	0.36	0.15	0.20	2.34	0.01	0.087
FAST	0.19	0.15	0.11	1.27	0.10	0.005
EXPR	0.14	0.08	0.08	1.76	0.04	0.002
ADV	-0.02	0.01	-0.08	-1.62	0.95	0.004
RELE	-0.02	0.04	-0.02	-0.48	0.32	0.001
intercept	-0.24	0.08		-2.84	0.00	
Total R^2						0.099

individual varieties are cancelled out in the aggregate data (i.e. table 5.6), whereas these varieties may influence the results based on individual data (i.e. table 5.8)[13].

Although the FAST variable is now of more influence on MBAV than it was in the analysis on product class level, contradictory results on the amount of explained variance and the p-values also exist in this analysis at an individual level. So, multicollinearity was checked for again by regressing each independent variable on all the other independent variables. These regressions yielded the following results:

- if the EXPR variable is the dependent variable: $R^2 = 0.22$
- if the FAST variable is the dependent variable: $R^2 = 0.78$
- if the EXPE variable is the dependent variable: $R^2 = 0.79$
- if the RELE variable is the dependent variable: $R^2 = 0.05$
- if the ADV variable is the dependent variable: $R^2 = 0.35$.

Again, the regression analyses with FAST and EXPE as dependent variables both result in a high R^2. Consequently, two regression analyses were employed in which either the EXPE or the FAST variable was discarded (tables 5.9a and 5.9b respectively). In table 5.9a, the results are listed of the regression analysis in which the EXPE variable was discarded. In table 5.9b, the results of the regression analysis are listed in which the FAST variable was discarded.

The five hypotheses were tested on the basis of these analyses. With regard to hypothesis 1, it is stated that products with predominantly expressive cues have higher MBAV-scores than products with predominantly functional cues (respectively, $p=0.02$ and $p=0.05$). So, we may accept hypothesis 1. On the basis of table 5.9a, hypotheses 2 is also accepted; fast-moving consumer goods have higher MBAV-scores than durable consumer goods ($p \leq 0.01$). Hypothesis 3 (on search vs experience cues) is also accepted at the $p \leq 0.01$ level. In other words: products with predominantly experience cues have higher MBAV-scores than products with predominantly search cues. However, one should realize that the FAST and the EXPE variable are

13: In comparing the results of the regression analysis on an individual level with the results of the regression analysis on product class level, one should keep in mind that on an individual level, variance differences of BAV-scores between brands may also contribute to MBAV. On product class level, this source of variation does not contribute to MBAV, because here MBAV is based on *average* BAV-scores.

Table 5.9a: Results of a regression analysis with individual MBAV-scores as the dependent variable. The EXPE variable is discarded from the analysis (N=576).

Variable	B	SE B	β	t-value	p-value	ΔR^2
FAST	0.48	0.07	0.28	6.88	0.00	0.083
EXPR	0.16	0.08	0.09	2.05	0.02	0.006
RELE	-0.04	0.04	-0.04	-0.87	0.19	0.001
ADV	-0.01	0.01	-0.03	-0.73	0.77	0.001
intercept	-0.27	0.08		-3.19	0.00	
Total R^2						0.091

Table 5.9b: Results of a regression analysis with individual MBAV-scores as the dependent variable. The FAST variable is discarded from the analysis (N=576).

Variable	B	SE B	β	t-value	p-value	ΔR^2
EXPE	0.53	0.07	0.30	7.18	0.00	0.087
ADV	-0.03	0.01	-0.10	-2.30	0.99	0.005
EXPR	0.13	0.08	0.07	1.66	0.05	0.004
RELE	-0.02	0.04	-0.02	-0.40	0.35	0.000
intercept	-0.20	0.08		-2.55	0.01	
Total R^2						0.096

not unrelated (in section 5.4, this relationship is elaborated upon further). Hypothesis 4 on personal relevance is not accepted. Although the direction of the effect is as expected, the effect is statistically non-significant. With regard to hypothesis 5, the direction of the relationship is opposite to what was expected: higher advertising expenditure is related to lower MBAV-scores. So, on the basis of these results, we cannot accept hypothesis 5, in

which it was stated that higher advertising expenditure results in higher MBAV-scores. In section 5.4, these results will be elaborated upon further.

5.4 Discussion on the differences in the magnitude of brand-added value

Below, the rank order of product classes is discussed first, followed by a discussion about the factors that influence MBAV. Subsequently, conclusions on differences in MBAV and some practical implications are discussed.

The rank order of product classes

In the current study, BAV was administered by two different magnitude estimation tasks: the task of drawing lines, and the dollar metric task. Although it has already been concluded in chapter 4 that the task of drawing lines is reliable and valid, the dollar metric task gained additional proof for the (concurrent) validity of the measurement instrument for BAV. When the current results are compared with the results reported in chapter 4 between the tasks 'assigning numbers' and 'drawing lines' (see table 4.6), the correlation coefficients in the current study (between 'drawing lines' and 'dollar metric') are remarkably higher. A possible explanation for these better results may be the fact that the dollar metric task better resembles the every-day experiences of consumers. In contradiction, one may also state that the task of assigning numbers is more of an abstract task (i.e. abstract in the sense that it is not related to real life experiences). Besides, as a check on concurrent validity, the dollar metric task was also used for determining differences in MBAV between product classes. The results listed in table 5.3 made it clear that the actual or supposed prices of brands may have their influence on the order of the product classes if MBAV is based on the dollar metric task. In this respect, one can state that the MBAV-scores based on the task of drawing lines show more clearly in which product classes brands are differentiated in the consumer's mind than do the MBAV-scores based on the dollar metric task. In point of fact, one may also state that for some product classes, the dollar metric task functioned as a test on discriminant validity instead of concurrent validity.

If one takes a closer look at table 5.3, it becomes clear that certain difficulties may arise in interpreting the MBAV-scores for some product classes.

After all, for the product classes eggs and milk one does not expect such high MBAV-scores. As a matter of fact, one might expect quite the opposite, namely that MBAV would be much lower for these product classes. To check this question on the face validity of the rank order of product classes, a question was included on this topic in a Delphi study on BAV (Riezebos and Pruyn, 1991). In this study, 29 marketing practitioners were asked to rank order the same 12 product classes according to sensitivity for BAV. These practitioners rank ordered the twelve product classes from eggs (least sensitive), milk, sweeteners, frying-pans, coffee-makers, shoes, women's magazines, washing machines, lipstick, watches, and cigarettes to automobiles (most sensitive to BAV). So, the rank order of product classes listed in table 5.3, deviates from the practitioners' rank order[14]. The marketing practitioners in the Delphi study indicated that they based their rank order of product classes mainly on the distinction between predominantly functional vs predominantly expressive cues. The results of the empirical study however indicated that this factor is of less importance for MBAV than the factors durable vs fast-moving consumer goods and search vs experience cues. Now, the focus will turn to factors that may actually influence MBAV.

Factors that influence the magnitude of BAV

The first hypothesis that was tested in section 5.3.3, refers to the factor predominantly functional vs predominantly expressive cues. The results of the regression analyses on product class level have already shown that this factor may have an influence on MBAV. The results of the regression analyses at an individual level showed that this factor does have a significant effect on the MBAV-scores. On the basis of these results, it is concluded that, if consumption goals in the consumer's psycho-social world play a major role in consuming products (i.e. products with predominantly expressive cues), MBAV is most likely to be high. On the other hand, if consumer's maximization of gains from the physical product plays a major role in consuming products (i.e. products with predominantly functional cues), MBAV is most likely to be low.

The results from both the regression analyses on product class level, and the regression analyses on an individual level, showed that the factors durable vs fast-moving consumer goods and search vs experience cues, largely overlap. The results of the regression analyses showed that both

14: The Spearman correlation coefficient between both rank orders is 0.15.

factors result in almost the same p-values and in almost the same amount of explained variance (the factor search vs experience cues, however, has a slightly better p-value and explains a slightly higher amount of variance). So, on the basis of these empirical results, one of either factors may be chosen as the factor that is of most influence on MBAV. Conceptually, however, the factor search vs experience cues is favoured over the factor durable vs fast-moving consumer goods. In fact, in our opinion, the distinction between search vs experience cues may explain the effect of durable vs fast-moving consumer goods on MBAV (see box 5.2). So, it may be that fast-moving consumer goods appear to result in high MBAV-scores because these goods are usually products with predominantly experience cues. Empirical corroboration for the factor search vs experience cues is found in table 5.5 for the case of automobiles. The product class automobiles was classified as durable / experience. Despite the durable character of this product class, the MBAV-score is relatively high. Recapitulating on this, it is stated that, on empirical grounds, either the factor durable vs fast-moving consumer goods or the factor search vs experience cues is of major influence on MBAV. On conceptual grounds, however, one may state that the factor search vs experience cues may explain the effect of durable vs fast-moving consumer goods on MBAV.

In hypothesis 4, it was stated that MBAV was expected to be higher for products that invoke low personal relevance, than for products that invoke high personal relevance (i.e. a negative relationship). Although a negative relationship was found between personal relevance and MBAV, the hypothesis was not corroborated statistically. On the basis of these results, one may conclude that high personal relevance does not reduce the influence of the BN (an extrinsic cue). This could mean that:

1. Personal relevance does indeed have no influence on MBAV.
2. The product class of sweeteners (which scored highest on personal relevance) was still not relevant enough to encourage consumers to invest more effort in comparing brands on intrinsic cues. With regard to this, one may at least conclude, that - within the boundaries of the current empirical study (i.e. the product classes used) - personal relevance has no significant effect on MBAV.

In section 5.1, personal relevance was positioned as an aspect of consumer involvement. Although personal relevance does not seem to influence

MBAV, it may be clear that other aspects of consumer involvement (like perceived risk) may be of influence on MBAV.

The final test was whether the advertising expenditures for a product class are related to MBAV. The imperfection of these data has already been mentioned in section 5.1. On the basis of the results of the regression analyses, hypotheses 5 could not be accepted. What is more, in actual fact there appeared to be a negative relationship between the advertising expenditures for a product class and MBAV. From table 5.5, one may derive that for especially washing machines and watches MBAV-scores are relatively low although the advertising expenditure is high. On the other hand, for eggs, milk, and lipstick the advertising expenditure is low compared to their MBAV-scores. For lipstick this could be explained by the fact that the advertising expenditure was only determined for brands of lipstick, and not for brands of cosmetics[15]. On the basis of the relatively low MBAV-scores for the product classes washing machines and watches - and based on the relatively high MBAV-scores for the product classes eggs and milk - it seems that the advertising expenditures for a product class may interact with the factor search vs experience cues. To verify this interaction, additional regression analyses were employed. In appendix 2, tables 6a and 6b, the results are reported of respectively, a regression analysis on product class level and the results of a regression analysis at an individual level. In these analyses, an interaction term on the factors search vs experience cues and advertising expenditures was included (i.e. EXPE X ADV). This interaction is expected to result in a positive t-value, because the influence of advertising expenditure is expected to be stronger for products with predominantly experience cues (which have the value 1 in the regression analysis) than for products with predominantly search cues (which have the value 0 in the regression analysis). However, in the regression analysis on product class level, the t-value of the interaction term is negative (but it is statistically non-significant). Here, the ADV variable itself also results in a negative t-value. In the regression analysis at an individual level, the t-value of the interaction term is negative indicating that advertising expenditure for prod-

15: For brands of lipstick, one may distinguish between so-called 'family of brands' and 'individual' brands. In the case of a family of brands, lipstick is part of a range of cosmetic products with the same BN. In the case of an individual brand, a lipstick is sold under a name that is not being used by other (cosmetic) products. In determining the advertising expenditure for lipstick, only individual brands of lipstick were chosen; brands of cosmetic products were not taken in consideration here.

ucts with predominantly experience cues are negatively related to MBAV. Here, the ADV variable itself results in a positive t-value indicating that - in general - higher advertising expenditure within product classes relates to higher MBAV-scores ($p=0.03$). In fact, this result confirms hypothesis 5. However, the EXPE x ADV interaction yields a negative t-value. On the basis of this finding, it is concluded that - within products with predominantly experience cues - a higher advertising expenditure relates to lower MBAV-scores.

On the basis of these findings, it was first expected that the negative value of the interaction term was caused by lipstick. After all, this product class has the highest MBAV-score, whereas the data on advertising expenditures for lipstick shows relatively low levels (see footnote 15). However, additional regression analyses, in which the product class lipstick was omitted, did not yield any significant changes compared to the analyses reported in appendix 2, table 6a and 6b. To gain insight in the negative value of the interaction term, the advertising expenditures are plotted in figure 5.1 with MBAV as the dependent variable (i.e. on individual level). On the basis of figure 5.1 one may conclude that there is no unequivocal linear pattern for products with predominantly experience cues. For eggs and milk, MBAV appears to be relatively high although advertising expenditures are relatively low[16]. This may be an indication that products with predominantly experience cues are relatively strongly sensitive to MBAV. However, for women's magazines and automobiles, the MBAV-scores are lower than one would expect on the basis of advertising expenditures (to a lesser extent, this also holds for cigarettes). An explanation for this deviation is difficult to formulate; a possible explanation may be that a saturation effect of advertising occurs in these product classes (i.e. an overkill of advertising expenditure). In other words: it looks like the relationship between advertising expenditure and MBAV is characterized by a function of diminishing returns for products with predominantly experience cues. So, at this point, we conclude that - in general, and in the case of products with predominantly search cues in particular - a higher amount of advertising expenditure within a product class corresponds to a higher MBAV. However, in this empirical study, for the products with predominantly experience cues, a higher amount of advertising expenditure within a product class corresponded with a lower MBAV. Possible causes may be ascribed to the fact that low

16: On the Dutch market, brand strategies were only recently developed for eggs and milk.

advertising expenditure already results in a high MBAV and to the fact that this effect of advertising expenditure on MBAV decreases quickly. Also, in interpreting this result, the limitations of the advertising expenditure data should be kept in mind.

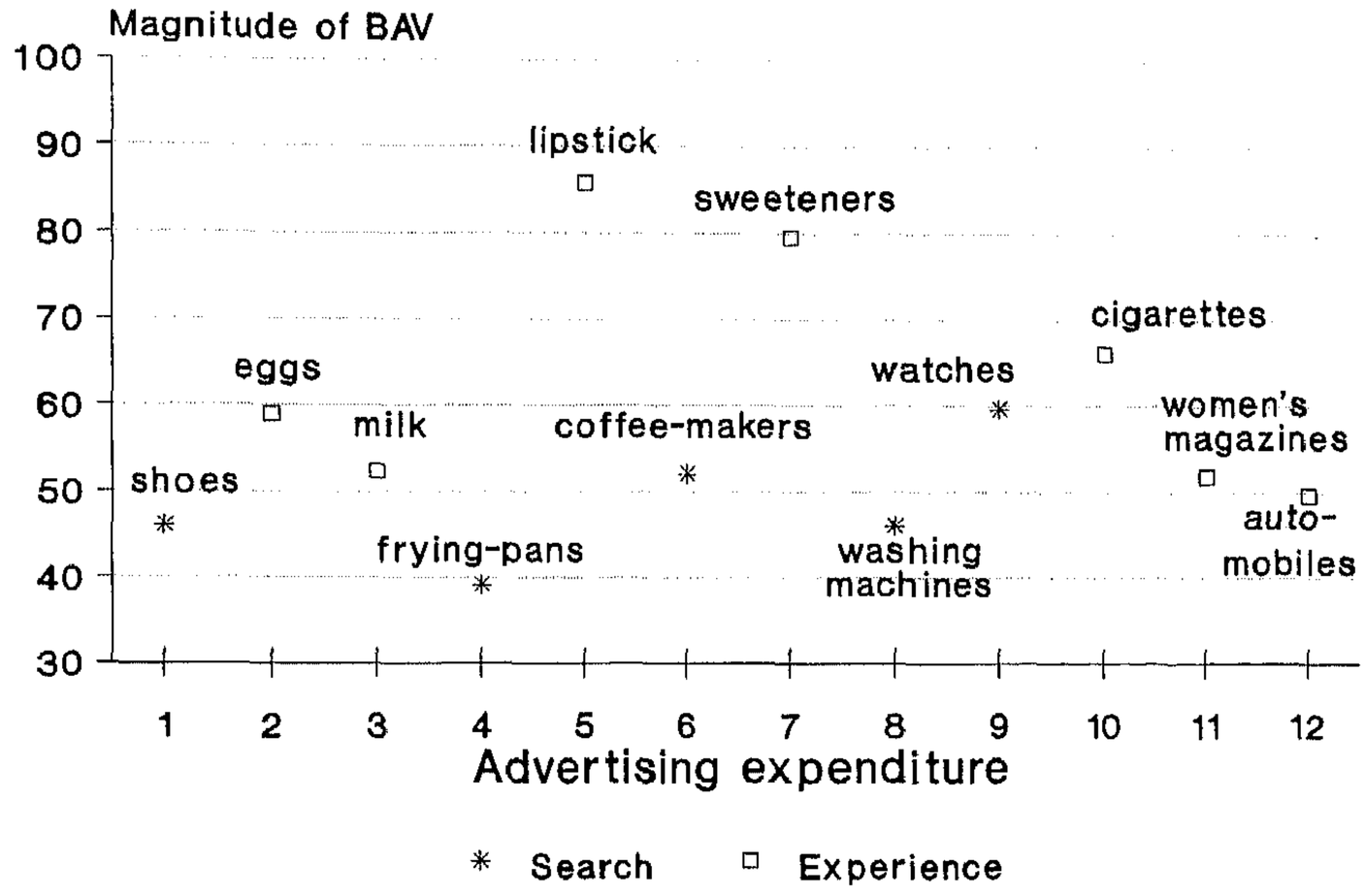

Figure 5.1: A plot of advertising expenditure with MBAV as the dependent variable (i.e. on individual level)[17]. Advertising expenditure has been expressed here in rank order data (see table 5.5).

Conclusions on differences in the magnitude of BAV between product classes and some practical implications

In this chapter, the focus has been on detecting and explaining differences in MBAV between product classes. Recapitulating on the results of the study reported in this chapter, one may conclude that:

1. MBAV is in the first place related to the factor search vs experience cues: MBAV is higher for products with predominantly experience cues than for products with predominantly search cues.

17: In figure 5.1, shoes are depicted on position 1 for advertising expenditure and eggs are depicted on position 2. In fact, these two product classes are tied to the same position (i.e. 1½) (see table 5.5). Advertising expenditure is represented in figure 5.1 as rank order data (see key to the independent variables of table 5.5).

2. In the second place, MBAV relates to the factor durable vs fast-moving consumer goods. Regarding this factor, MBAV is higher for fast-moving consumer goods than for durable consumer goods. However, the factor durable vs fast-moving consumer goods corresponds strongly to the factor search vs experience cues; in fact, the relationship between MBAV and durable vs fast-moving consumer goods may be explained by the relationship between MBAV and search vs experience cues.
3. In the third place, MBAV relates to the factor functional vs expressive cues: MBAV is higher for products with predominantly expressive cues than for products with predominantly functional cues.
4. In the fourth place, MBAV relates to advertising expenditure within a product class. In general, high advertising expenditure corresponds to a high MBAV. However, for products with predominantly experience cues, high advertising expenditure corresponded to a low MBAV. The latter result may be due to the fact that low advertising expenditures already result in a high MBAV and to the fact that this effect decreases quickly for products with predominantly experience cues.

On the basis of the results reported in this chapter, one may state, that products that are characterized by predominantly experience cues have the greatest potential for employing brand strategies. Although marketing practitioners expected that this would not be the case for markets in which branding activities are running at a low level (like eggs and milk), the MBAV-scores made it clear that these product classes are relatively sensitive to BAV. Hence, one may state that branding strategies may be successful for these markets. For products with predominantly search cues, brand strategies seem to be less effective than for products with predominantly experience cues. In the following chapter, we will investigate the influence of advertising - which is a major instrument of branding - on BAV.

CHAPTER 6
INFLUENCING BRAND-ADDED VALUE THROUGH ADVERTISING

In chapters 4 and 5, a measurement instrument for brand-added value (BAV) was elaborated upon and differences in the magnitude of BAV (MBAV) between product classes were investigated. In the current chapter, an experiment is described in which an attempt was made to influence BAV for two non-existent brands through advertising. Thus, the third research question formulated in section 3.5. is finally addressed: 'To what extent does advertising influence BAV, and what factors may moderate a possible effect?'. In section 6.1, the theory concerning the influence of advertising on BAV is discussed. In section 6.2, the method used in the experiment is described, followed by a discussion of the results of the experiment in section 6.3. The chapter is concluded by a general discussion of these results in section 6.4.

6.1 Theory concerning the influence of advertising on brand-added value

It was stated in section 1.1 that probably the most powerful instrument of branding is advertising. Later in the same chapter, it was also made clear that advertising is a difficult instrument to manipulate where branding is concerned (i.e. difficult in the sense that advertising does not always produce the desired effect). In the section on 'financial benefits', it was concluded that in terms of the advertising - sales relationship, advertising *may* influence sales. It was also concluded that mediating variables may influence the magnitude of the effect of advertising on sales. One type of mediating variable may be the information content of advertising. In section 2.1, the information content of advertising was linked to the search and experience cues of products. Figures 2.3a through 2.3d showed that the brand name (BN) may function as a halo, a holistic, or a summary construct, depending on the nature of the product and the kind of information highlighted in the advertising. In this discussion it was revealed that advertising may focus on intrinsic cues by providing rational information, or on extrinsic cues by providing mainly emotional information. In section 3.3.5, these types of advertising were labelled '*informational advertising*' and '*transformational advertising*', respectively. Also in section 3.3.5, the question

was addressed as to what modality of advertising best suits what type of product (viz. predominantly search as opposed to predominantly experience). In concluding on this topic, it was stated that advertising contributes to BAV by complementarity. In other words: those cues that cannot be inferred from the product should be used in advertising. This implies that added information may function as a source of added value. For products with predominantly search cues, transformational advertising is expected to contribute to BAV, whereas informational advertising (containing information on revealed intrinsic cues) does not contribute to BAV (see proposition 3.17a). However, for products with predominantly experience cues, both modalities of advertising may add information to the brand and, hence, both modalities of advertising may contribute to BAV. The question that now springs to mind, is whether informational *or* transformational advertising has a greater influence on the BAV of a product with predominantly experience cues? To answer this question, a second assumption was formulated in section 3.3.5. This assumption states that consumers eventually choose a brand for its intrinsic cues. Working on this assumption, it is to be expected that for products with predominantly experience cues informational advertising contributes more to BAV than transformational advertising (see proposition 3.17b). To recapitulate:

1. For products with predominantly search cues, transformational advertising will contribute to BAV, whereas informational advertising will not contribute to BAV.
2. For products with predominantly experience cues, both informational and transformational advertising contribute to BAV; informational advertising will however contribute more to BAV than transformational advertising.

Besides differences in the aptitude of both modalities of advertising for either type of product class, both types of product classes may also differ in their sensitivity for advertising in general. It was stated in chapter 2 that for products with predominantly experience cues, extrinsic cues may influence BAV to a greater extent than for products with predominantly search cues[1]. As advertising offers extrinsic cues, the influence of advertising on BAV is most likely to be larger for products with predominantly experience cues. In other words: predominantly experience cues may facilitate the effect of advertising on BAV. In figure 6.1, the expected effects of advertising on

1: See figure 2.2 for the influence of the BN on judging a brand.

BAV are summarized. In this figure, a distinction is made between products with predominantly search, and products with predominantly experience cues. The baseline shows that if consumers are not exposed to advertising, BAV does not increase. From figure 6.1, it can be derived that for products with predominantly search cues transformational advertising is more effective, and that for products with predominantly experience cues informational advertising is more effective. Furthermore, it is expected that advertising influences BAV more strongly for products with predominantly experience cues than for products with predominantly search cues.

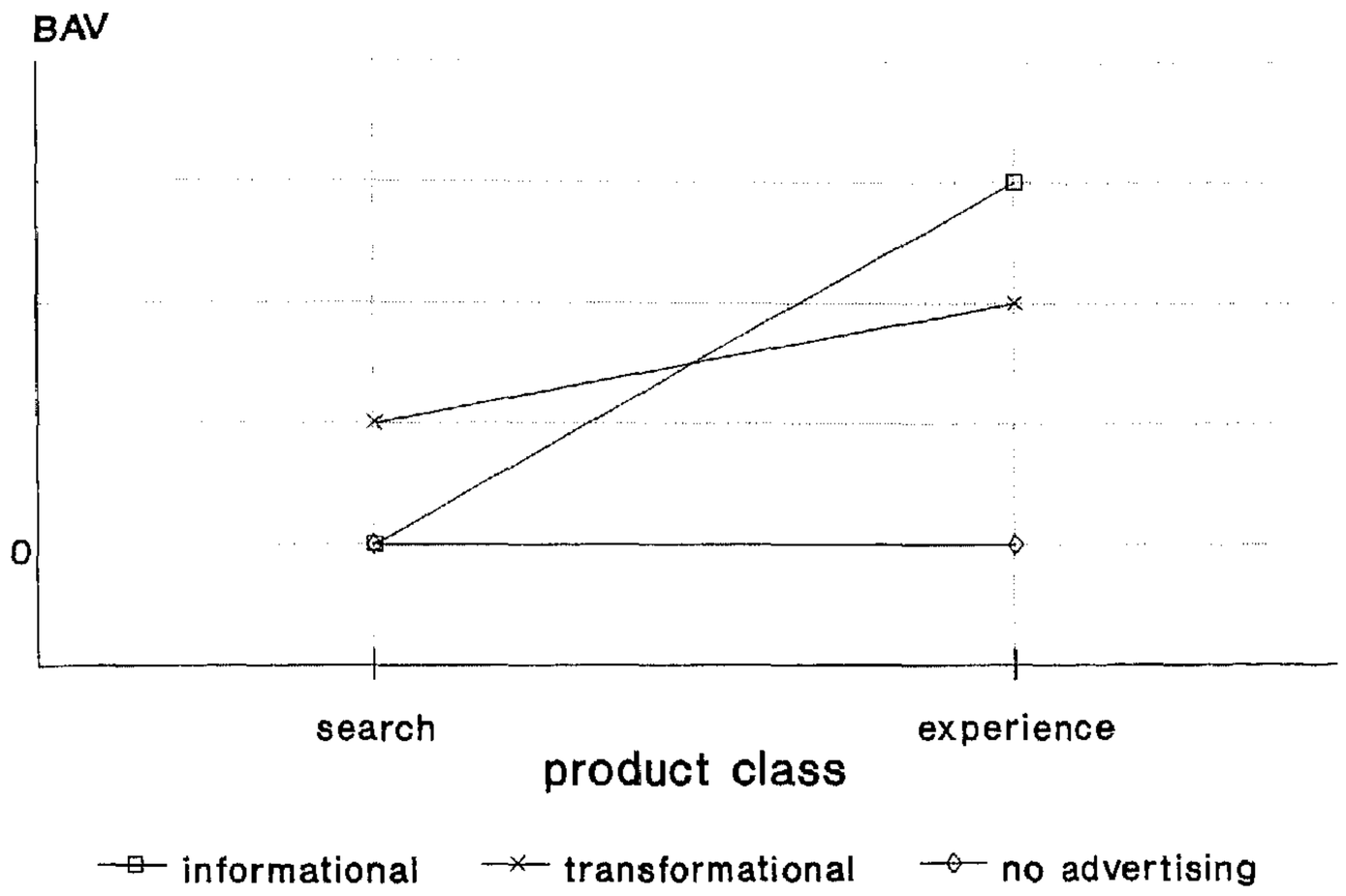

Figure 6.1: The presupposed effects of two modalities of advertising (i.e. informational vs transformational) on the increase of BAV for products with predominantly search, and for products with predominantly experience cues.

On the basis of figure 6.1, conclusions can be drawn as to what kinds of effects are to be expected. Regarding differences in the sensitivity of the product classes for advertising in general, an interaction effect is expected between advertising (i.e. advertising present vs advertising absent) and the type of product (i.e. search vs experience). Regarding the differences in the aptitude of both modalities of advertising for the two types of product class, an interaction effect is expected between the modality of advertising (i.e. informational vs transformational) and the type of product (i.e. search vs experience).

In studying the effect of advertising on BAV, one should realize that an effect will most probably not occur directly, but that it may take some time to influence BAV[2]. So, in setting up a design for an experiment in which the influence of advertising on BAV is investigated, time should be taken into account as a moderating variable. Literature on the "exposure - affect relationship" may provide insights into how to explicitly handle time in our experiment. The exposure - affect relationship relates to the question as to whether more exposures to a stimulus lead to an increase in positive affect towards the stimulus. In the exposure - affect relationship, two aspects of time are relevant:

1. The number of times subjects are exposed to stimuli.
2. The period of delay between stimulus exposures.

Bornstein (1989)[3] gives an overview and meta-analysis of research on the exposure - affect relationship in general (i.e. not limited to advertisements as stimuli), whereas Pechmann and Stewart (1990) review studies on the exposure - affect relationship using advertisements as stimuli. In considering the number of times subjects should be exposed to stimuli in order to increase the dependent variable, Bornstein (1989) concludes that:

> *...the frequency-affect curve reaches an apex after a fairly small number of exposures, generally leveling off after 10-20 stimulus presentations.*

With a 'fairly small number', Bornstein means a number of presentations ranging from 1 to 9. After too many exposures, boredom may inhibit the exposure - affect relationship. So, after a few exposures to advertisements, the BAV of a brand may already increase. In reviewing laboratory studies in which subjects were required to view advertisements, Pechmann and Stewart (1990) conclude that wear-in is often immediate and that wear-out begins immediately after the third exposure[4]. So, on the basis of this information, three exposures should suffice to increase BAV substantially.

2: This delayed response of advertising was already discussed in section 1.2, and was referred to as the carry-over effect of advertising.

3: Bornstein (1989) based his meta-analysis on 134 studies that cover the period 1968-1987. Starting point of Bornstein's overview and meta-analysis is Zajonc's monograph on 'Attitudinal effects of mere exposure' (Zajonc, 1968).

4: Wear-in signifies that exposure to an advertisement affected consumers on cognitive, affective or conative aspects. An advertisement is worn-out if it no longer affects consumers or if it affects consumers negatively on one of these aspects.

Regarding the period of delay between stimulus exposures, Bornstein (1989) concludes that[5]:

> *...a period of delay between stimulus exposures and ratings results in a stronger exposure effect, even when the delay lasts for up to 2 weeks.*

So, time intervals between exposures may facilitate the exposure - affect relationship; consequently the BAV of a brand may increase. Now, if we take a time interval between exposures into account, less than three exposures may suffice to increase BAV. In fact, two exposures may be enough. To conclude on time as a mediating variable, it can be stated that two exposures may be enough to invoke a substantial BAV if a period of delay is taken into account between both exposures. The focus will now turn to the hypotheses of the experiment.

The first hypothesis refers to the sensitivity of the product classes for advertising in general. Regarding this hypothesis, the focus is on the interaction between advertising (i.e. advertising present vs advertising absent) and the type of product (i.e. search vs experience). **Hypothesis 1** runs as follows:

> *Advertising has a stronger effect on brand-added value for products with predominantly experience cues, than for products with predominantly search cues.*

The second hypothesis refers to the interaction between the modality of advertising (i.e. informational vs transformational) and the type of product. **Hypothesis 2** runs as follows:

> *For products with predominantly search cues, transformational advertising contributes to BAV, whereas informational advertising does not contribute to BAV. For products with predominantly experience cues, both informational and transformational advertising contribute to BAV; informational advertising however contributes more to BAV than transformational advertising.*

In the following section, the method used in the experiment is described.

5: Pechmann and Stewart (1990) only review studies in which subjects were required to view advertisements *within one session* (i.e. forced exposures that were 'massed' within a maximum of one hour). Hence, Pechmann and Stewart do not make any statements on the period of delay between advertising exposures.

6.2 Method used in the experiment

In the experiment, subjects were exposed to different modalities of advertising for different types of products. To determine the effect of advertising, BAV-scores were measured at several points in time. Below, the measurement instrument for BAV is briefly reviewed, followed by a description of the design and the procedure followed in the experiment. Finally, the subjects who participated in the experiment are described.

Measurement instrument
In the experiment, brand and blind scores were administered for different brands by applying the method of magnitude estimation in which a system of line-drawing was undertaken by the respondents. The brand and the blind alternatives were presented to the subjects in one session. A more detailed description of the measurement instrument can be found in chapters 4 and 5.

In this experiment, two product classes were used that were also included in the study described in chapter 5 (namely, coffee-makers and lipstick). The subjects who participated in the experiment, were selected from the same panel as in the previous study[6]. In chapter 5, the consistency of the blind scores for the product classes coffee-makers and lipstick was determined for a comparable group of subjects. For this reason, no paired comparison tasks had to be administered in the current experiment. BAV-scores are determined here in accordance with formula 4.1 for both product classes (i.e. BAV = BRAND - BLIND) based on the results of the paired comparison tasks for coffee-makers and lipstick reported in chapter 5.

Design of the experiment
As already stated above, subjects were exposed to different modalities of advertising (or no advertising) for two types of products, and BAV was measured over subsequent periods of time. In the experiment, three independent variables were distinguished:
1. A variable that refers to the two modalities of advertising (treatments), or no advertising. Below, this variable is referred to as the advertising

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6: Below, the choice of product classes is described under the heading 'procedure'. The choice of subjects is described under the heading 'subjects'.

condition (abbreviated as 'ADV'). Within this variable, three levels were distinguished:
a: exposure to an informational advertisement;
b: exposure to a transformational advertisement;
c: exposure to neither one of these advertisements (below, this level is referred to as the 'control group').

2. A variable that refers to the type of product class, which will be referred to as 'PROD'. Within this variable, two levels were distinguished:
   a: a product with predominantly search cues (a coffee-maker);
   b: a product with predominantly experience cues (a lipstick).
3. A variable that refers to the time between an advertising exposure and the measurement of a subject's BAV-score. This variable will be referred to as 'TIME'. Within this variable, three levels were distinguished:
   a. period 1;
   b. period 2;
   c. period 3.

To avoid carry-over effects between treatments, and to disguise the aim of the experiment for subjects, one subject was exposed to only one modality of advertising within a product class. So, the ADV variable was measured *between* subjects, and the PROD variable *within* subjects. The TIME variable was also measured within subjects[7].

In the experiment, one pre-test and three post-tests were administered, whereas subjects were exposed to advertisements twice. The pre-test was administered at the beginning of the experiment before subjects were exposed to advertisements. The first post-test (i.e. post-test 1) was administered directly after the first exposure. Post-test 2 was administered after a time lag of one week from the first exposure (and hence, one week after post-test 1). Post-test 3 was administered after a time lag of one week from the first exposure and directly after the second exposure. The dependent variable here is the difference in BAV-scores between a post-test and the pre-test (i.e. Δ BAV). The design of the experiment is illustrated in table 6.1.

7: Measuring BAV for the brand of coffee-maker and the brand of lipstick may also have an influence on the noticeability of the advertisements for these brands for ADV conditions 1 and 2. Therefore, filler-advertisements were used to distract subjects' attention from the advertisements for the brand of coffee-maker and the brand of lipstick (the filler-advertisements are described further below).

Table 6.1: The design of the experiment 'influencing brand-added value through advertising'[8].

	TIME	Pre-test	Post-test 1	Post-test 2	Post-test 3
ADV	PROD				
Informational	search	X_{n110}	Y_{n111}	Y_{n112}	Y_{n113}
	experience	X_{n210}	Y_{n211}	Y_{n212}	Y_{n213}
Transformational	search	X_{n120}	Y_{n121}	Y_{n122}	Y_{n123}
	experience	X_{n220}	Y_{n221}	Y_{n222}	Y_{n223}
Control group	search	X_{n130}	Y_{n131}	Y_{n132}	Y_{n133}
	experience	X_{n230}	Y_{n231}	Y_{n232}	Y_{n233}

Key to the notation system of X and Y:
- the first subscript refers to the number of observations for that variable (n=40).
- the second subscript indicates the type of product class: predominantly search (1) or predominantly experience (2).
- the third subscript indicates the treatment under which the observation is made: informational (1), transformational (2) or the control group (3).
- the fourth subscript indicates the time of observation: pre-test (0), post-test 1 (1), post-test 2 (2) or post-test 3 (3).

Procedure

Based on the results of the experiment reported in the previous chapter, the product class of coffee-maker was chosen to represent a product class with predominantly search cues. The product class of lipstick was chosen to represent a product class with predominantly experience cues. Not only were these product classes selected for their difference on search vs experience cues, but also for their differences on MBAV-scores (see table 5.5). Based on these criteria, it is to be expected that advertising is more likely to influence the BAV-score for a brand of lipstick than for a brand of coffee-maker.

8: The PROD and TIME variables were measured within subjects, whereas the ADV variable was measured between subjects.

In the experiment, fictitious BNs were used for both coffee-maker and lipstick. For the coffee-maker the BN 'Krantz Thermocafé' was used, and for lipstick the BN 'Aisha' was used. These BNs were thought up in discussions with female consumers. For both Krantz and Aisha, two different modalities of print advertisements were produced (an informational and a transformational advertisement for both Krantz and Aisha). A Dutch cosmetic firm produced a unique lipstick that was used in the advertisements and in the experiment. The lipstick was provided with the BN 'Aisha'. In the advertisements for Krantz, a coffee-maker was used that was recently introduced on the Dutch market (and was probably not known to the respondents). In the advertisements, the original BN of the coffee-maker was not visible. Based on briefings that elucidated the two different modalities of advertising, two professional creative teams produced several prototypes of advertisements. Subsequently, individual depth interviews were conducted with eight women to test the communication effect of the advertisement prototypes. Based on these interviews, four advertisements were selected to be used in the experiment (one for each modality of advertising for each type of product). The content of each selected advertisement was adjusted to the criticism given in the interviews. Copies of the four advertisements have been included in appendix 3 of this thesis.

Subjects who were willing to participate in the experiment were invited to come to the university. Subjects were told that they had to come twice; the second session was planned a week after the first session. 40 subjects were randomly assigned to each condition. At the first session, the subject received oral instructions for the various tasks. To practice the magnitude estimation task, subjects first completed an exercise task. In this exercise task, subjects had to judge the area of two squares (labelled B and C) in comparison to a reference square (labelled A). The sides of these squares differed from 7 to 12 centimetres. After this exercise task, brand and blind scores were administered for the pre-test by means of magnitude estimation tasks. Subjects were told that the aim of the experiment was to investigate consumers' information-processing strategies[9]. The magnitude estimation scores were administered for two brands of coffee-makers, two brands of lipstick, two brands of body-lotions and two brands of dishwashers. The magnitude estimation scores for body-lotions and dishwashers were admin-

9: The results of a question on the aim of the study showed that only two subjects thought that the experiment focused on the influence of advertising on consumers' preferences.

istered to distract the subjects' attention from the product classes coffee-maker and lipstick in general, and from the brands Krantz and Aisha in particular. So, four magnitude estimation tasks were employed (i.e. for four different product classes). For each magnitude estimation task, two brands were used (with and without BN). For coffee-makers the brand Petra Electronic was used as a reference stimulus; for lipstick the brand Revlon was used as a reference stimulus. Both brands were selected as reference stimuli, because they appeared to have a medium BAV-score in the previous study. Subjects judged coffee-makers and dishwashers by comparing descriptions of the products. Lipsticks and body-lotions were judged by testing the actual products. In the blind test, the BNs were masked and the product alternatives were labelled with a letter (A or B).

Directly after the pre-test, subjects in condition 1 were exposed to informational advertisements, whereas subjects in condition 2 were exposed to transformational advertisements for Krantz and Aisha. Subjects in the control group were not exposed to either one of these advertisements (instead, they were exposed to advertisements of brands from different, unrelated product classes). From now on, we refer to this treatment for condition 1 and 2 as 'exposure 1'. After exposure 1, brand and blind scores for the first post-test were administered by means of magnitude estimation tasks (i.e. post-test 1). Again, magnitude estimation tasks for body-lotions and dishwashers were used to disguise the aim of the study. After post-test 1, subjects filled out a questionnaire on demographic characteristics.

The second session took place one week later. In that session, again brand and blind scores were administered by means of magnitude estimation tasks (i.e. post-test 2). Subsequently, subjects were again exposed to informational advertisements (condition 1), to transformational advertisements (condition 2), or to neither one of these advertisements (the control group). Below, this treatment is referred to as 'exposure 2'. After exposure 2, brand and blind scores were again administered for the four product classes (i.e. post-test 3). After post-test 3, subjects filled out a questionnaire on uses and experiences with the brands in question. In table 6.2, the observations and treatments for both advertising conditions and the control group are summarized.

Table 6.2: Observations (O_j) and treatments (X_j) for the two advertising conditions and the control group.

Condition 1: (informational)	O_1O_{13} - X_1X_5 - O_2O_{14}	O_3O_{15} - X_2X_6 - O_4O_{16}
Condition 2: (transformational)	O_5O_{17} - X_3X_7 - O_6O_{18}	O_7O_{19} - X_4X_8 - O_8O_{20}
Control group:	O_9O_{21} - S S - $O_{10}O_{22}$	$O_{11}O_{23}$ - S S - $O_{12}O_{24}$

Observations numbered 1 through 12 and treatments numbered 1 through 4 refer to the search product (i.e. Krantz). Observations numbered 13 through 24 and treatments numbered 5 through 8 refer to the experience product (i.e. Aisha). The letter 'S' refers to 'substitute-advertisements'.

In the experiment, subjects had to glance through a portfolio of advertisements on their own. This portfolio contained seven advertisements. The content of the portfolio differed between the two advertising conditions and the control group:

1. For condition 1, the portfolio contained informational advertisements for Krantz and Aisha, advertisements for a brand of body-lotion and a brand of dishwasher, and three so-called 'filler-advertisements'.
2. For condition 2, the portfolio contained transformational advertisements for Krantz and Aisha, advertisements for a brand of body-lotion and a brand of dishwasher, and three filler-advertisements.
3. For the control group, the portfolio contained advertisements for a brand of body-lotion and a brand of dishwasher, three filler-advertisements, and two substitute-advertisements[10].

Subjects were instructed to read the copy of each advertisement, and to turn the page only after they had got the impression that they had taken the ad-

10: The advertisements for a brand of body-lotion and for a brand of dishwasher, as well as the three filler-advertisements, were the same for both experimental conditions and for the control group. Filler-advertisements recommended brands of ladies hosiery, chocolate-bars, and a country to spend the holidays. For the control group, two advertisements were used to replace advertisements for Krantz and Aisha (i.e. substitute-advertisements). These substitute-advertisements recommended brands of a non-alcoholic aperitif and an epilatory apparatus.

vertisement in well enough. To ease the recall of Krantz and Aisha advertisements, one of these advertisements was inserted on the first, and one on the last page of the portfolio (so that *primacy* and *recency* memory effects[11] could emerge). The order of the advertisements in the portfolio was varied over respondents for each condition. Furthermore, the order of the four product classes was balanced in administering the magnitude estimation scores. This so-called 'counter balancing' for both the order of the advertisements and the administering of magnitude estimation scores was done to randomize sequential effects. Before describing the results of the experiment, the focus will now turn to the subjects who participated in the experiment.

Subjects

Only women participated as subjects in the experiment (as in the study reported in chapter 5). Potential subjects were selected from the same panel as the one used in the previous study. The subjects who participated in the previous study were also asked to participate in the current experiment. However, the subjects who judged coffee-makers and lipstick in the previous study (group 1) were not invited a second time. In total, 120 subjects participated in the experiment; almost 70 % of the subjects had participated in the study 'differences in the magnitude of brand-added value between product classes'. The women were phoned and invited to participate in the experiment. The women participating received a sum of Dfl. 35,= for two sessions. The first session took about 40 minutes; the second session took about 30 minutes. Each woman was randomly assigned to one advertising condition. In appendix 3, table 1, the demographic characteristics of the three groups of women are given[12]. Regarding the demographic characteristics administered, the three groups only differ in a statistically significant way in terms of age group at the $p \leq 0.01$ level ($df=8$). From appendix 3, table 1, it appears that in the control group there are relatively more subjects between 40 and 49 years old. It was considered unnecessary to adjust the analyses for this characteristic. The results of the experiment are described in the following section.

11: Primacy and recency (memory) effects imply that the first and last items in a row of stimuli are remembered best (see Raaijmakers, 1984 p.110 ff).

12: These demographic characteristics are: age group, civil status, family size, income bracket, and educational level.

6.3 Results

In this section, the results of the experiment are described, and the hypotheses formulated in section 6.1 are tested. Before the actual results of the experiment are reported, the discussion will revolve around the method of analysis used.

The method of analysis used

In section 6.2, the design of the experiment was described and it was shown that a pre-test post-test design with multiple post-tests has been used. In analysing the results, the interest lies in differences in the dependent variable (Y_j) by taking initial differences between groups into account (X_j; i.e. means on the pre-test scores). After all, there may be differences between subjects on these pre-test scores. Consequently, these differences may increase the error term within groups and they may increase the error term between groups. In adjusting the post-test scores for the pre-test scores, one may use several different methods (Winer et al., 1991 p.739 ff). One way of adjusting the post-test scores for the pre-test scores, is by subtracting the pre-test scores from the post-test scores (i.e. by computing so-called 'difference scores'). However, this method does not account for initial differences between groups. A method that overcomes this problem is one that adjusts the post-test scores by applying a regression adjustment. The form of this adjustment is given in formula 6.1. In fact, this type of analysis is usually referred to as an 'analysis of covariance' (abbreviated as ANCOVA).

$$Y_i' = Y_i - b\,(X_i - M_x) \qquad (6.1)$$

In which: Y_i' : the adjusted post-test score of subject i;
Y_i : the unadjusted post-test score of subject i;
b : the regression coefficient of Y on X;
X_i : the pre-test score of subject i;
M_x : the grand mean of the pre-test scores.

By applying this regression adjustment, the initial differences between groups are adjusted for statistically. Due to this, the power of the F test on main and interaction effects may increase compared to an adjustment using difference scores. So, in employing an ANCOVA, the pre-test data are used

as a covariate (for a detailed description of this procedure, see also Tabachnick and Fidell, 1989 p.316 ff). To recapitulate, it is stated that the error term of the ANCOVA is adjusted for the relationship between the post-test and the pre-test scores. By employing an ANCOVA, differences between conditions in pre-test data are accounted for.

The results of the ANCOVA

In table 6.3, average BAV-scores are listed for the two ADV conditions and the control group for both the search and the experience product. Besides the average BAV-scores of the pre-tests, adjusted means for the post-tests are listed[13]. In figures 6.2a and 6.2b, these adjusted means of the post-tests are plotted for the search and the experience product, respectively. As can be seen, the means on pre-test scores differ between the three groups of subjects (see table 6.3). These differences may be explained by the fact that the BNS Krantz and Aisha were unknown names with no pre-determined associations. In other words: no commonly experienced image determined these BAV-scores. Hence, the variation in BAV-scores may be relatively large. On the basis of figure 6.2a, one may conclude that for the search product, informational advertising is initially more effective than transformational advertising. Regarding this, the pattern of the BAV-scores for transformational advertising at post-test 1 and post-test 2 is almost identical to the pattern of the BAV-scores for the control group. Hence, there is no effect from transformational advertising at post-test 1 and post-test 2. However, after post-test 2, transformational advertising becomes more effective than informational advertising. In post-test 3, the BAV-scores of informational advertising are almost similar to the control group. Regarding the experience product (see figure 6.2b), the BAV-scores for informational advertising increase initially, but decrease after post-test 2. The BAV-scores for transformational advertising decrease initially, but increase slightly after post-test 2. For the experience product, the pattern of the BAV-scores of transformational advertising is almost similar to the pattern of the control group. The results of the ANCOVA may show whether if any of the expected interaction effects is statistically significant.

13: Adjusted means are post-test scores that are corrected for the pre-test scores. Tabachnick and Fidell (1989, p.322) describe adjusted means as 'means that would have occurred if all subjects had the same scores on the covariates' (see also Winer et al., 1991 p.741).

Table 6.3: Average pre-test BAV-scores and adjusted means of post-test BAV-scores (standard deviations are given in parentheses) (N=40).

	Search product (Krantz)		Experience product (Aisha)	
Pre-test				
Informational	-0.70	(3.23)	1.40	(11.34)
Transformational	0.22	(10.12)	0.93	(12.54)
Control group	-0.85	(7.95)	4.25	(12.76)
Post-test 1				
Informational	2.37	(6.01)	0.68	(7.98)
Transformational	-0.06	(8.51)	1.09	(9.30)
Control group	0.34	(7.49)	0.76	(8.84)
Post-test 2				
Informational	0.96	(7.80)	1.91	(9.75)
Transformational	0.12	(5.92)	-0.54	(6.74)
Control group	0.57	(8.83)	-0.12	(7.53)
Post-test 3				
Informational	0.05	(6.66)	0.35	(5.34)
Transformational	2.56	(7.01)	-0.43	(8.35)
Control group	-0.23	(5.47)	-0.42	(7.51)

In appendix 3, before table 2, a brief explanation is given on the contrasts that were specified in the ANCOVA. As two different contrasts were specified (i.e. reverse Helmert contrasts and simple contrasts), two ANCOVAs were employed. In appendix 3, table 2, the results of two ANCOVAs are listed taking all three variables into account (i.e. ADV, PROD, and TIME). In testing the hypotheses one-tailed p-values are used, because the hypotheses specify the direction of the effects. Based on the results of the ANCOVA, hypothesis 1 cannot be accepted; the interaction ADV (3 vs 1 + 2) x PROD is statistically non-significant (p=0.39). So, the proposition that advertising has a stronger effect on BAV for a product with predominantly experience cues

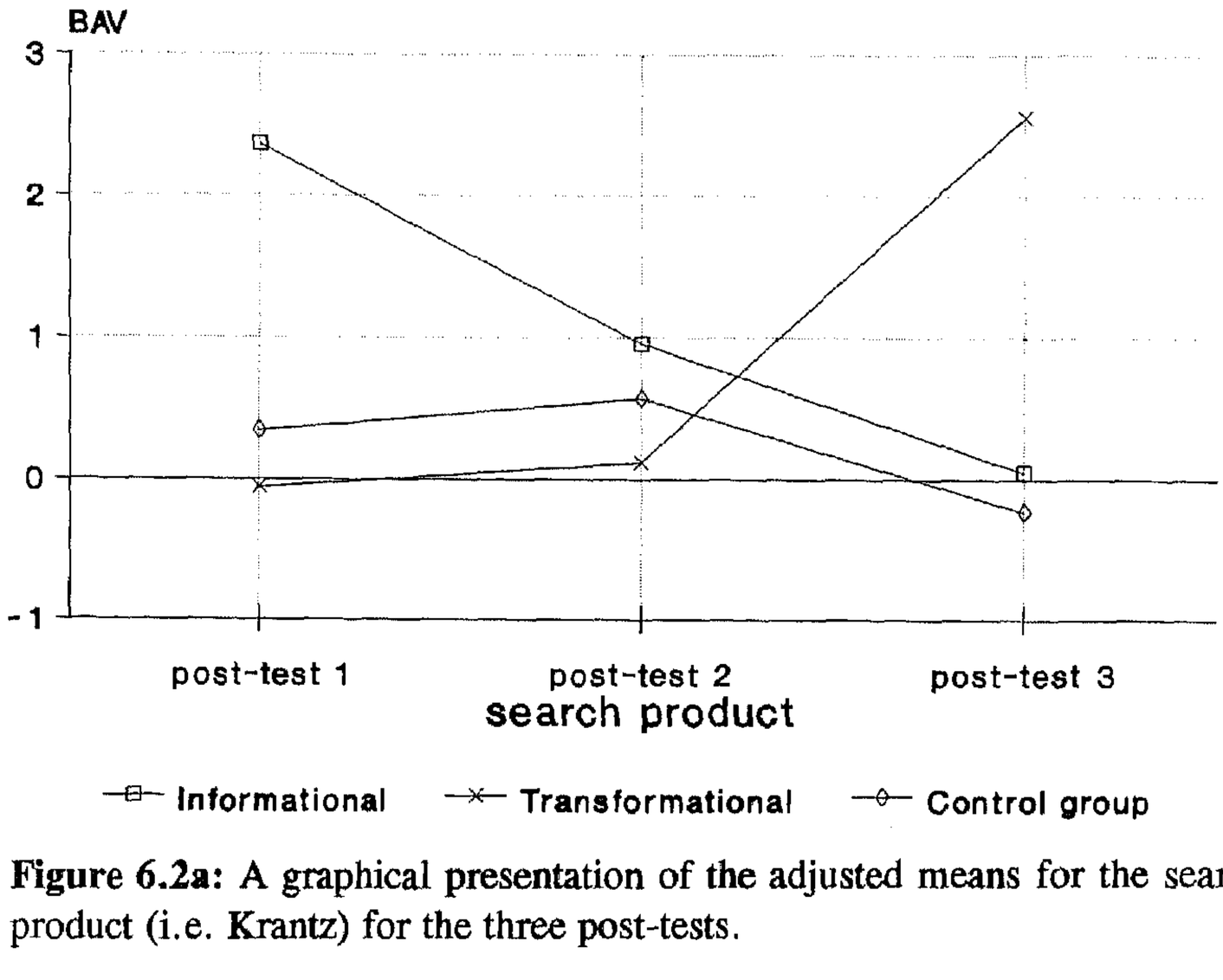

Figure 6.2a: A graphical presentation of the adjusted means for the search product (i.e. Krantz) for the three post-tests.

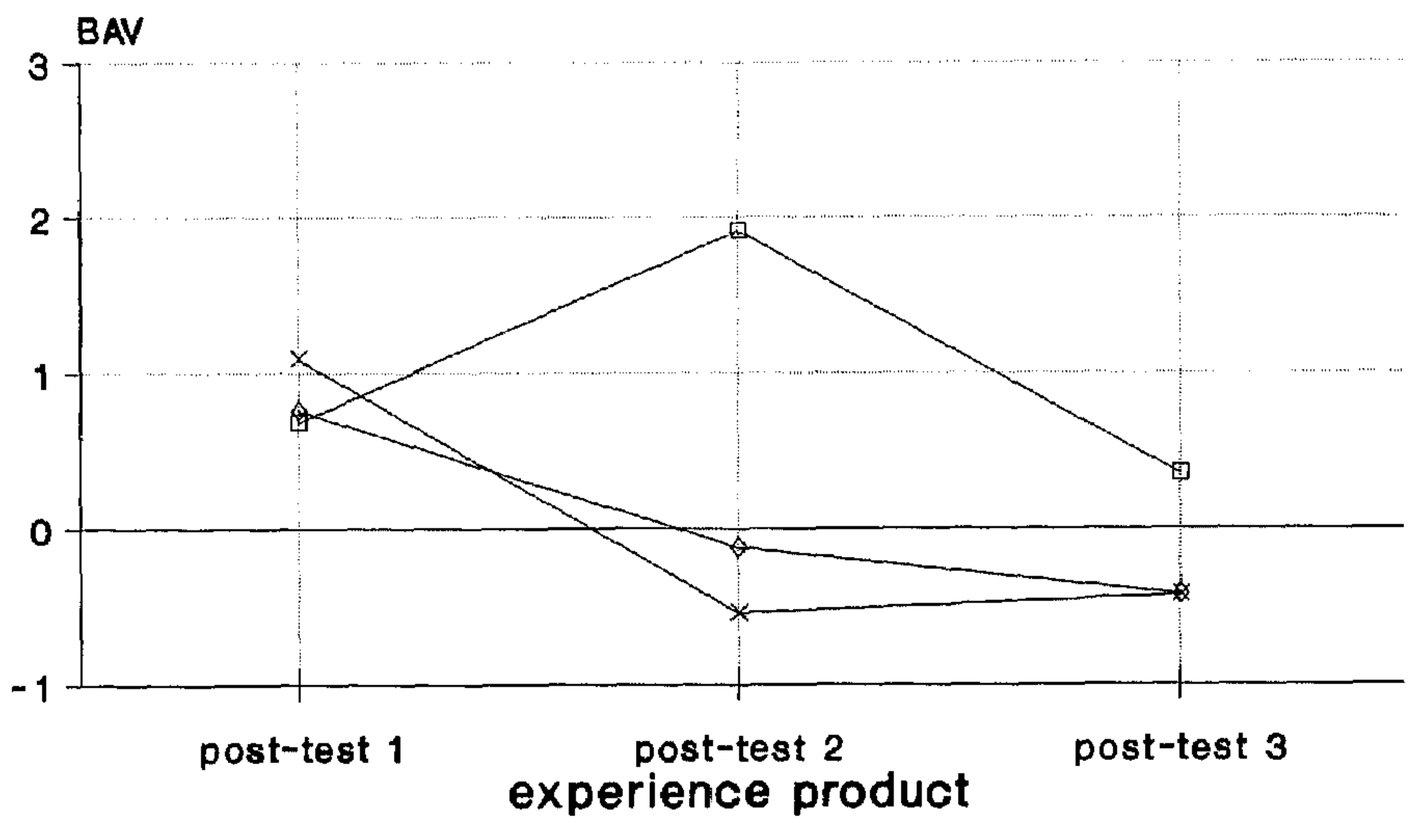

Figure 6.2b: A graphical presentation of the adjusted means for the experience product (i.e. Aisha) for the three post-tests.

than for a product with predominantly search cues, is, empirically, not corroborated. Even if the TIME variable is taken into consideration, no statistically significant effects appear. In fact, the expected interaction ADV (3 vs 1 + 2) x TIME is statistically non-significant at p=0.42 for TIME (2 vs 1) and at p=0.35 for TIME (3 vs 1). Here, the simple contrasts gain no additional insight. So, TIME did not moderate on the ADV x PROD interaction. Hypothesis 2 can not be accepted either; the interaction ADV (2 vs 1) x PROD is statistically non-significant (p=0.31). This implies that the modality of advertising does not interact with the type of product.

Although both hypotheses are not corroborated empirically, the propositions on which the hypotheses were based may still be valid. Support for this may be found in figures 6.2a and 6.2b. On the basis of these figures it can be seen that there is not an unequivocal pattern for the BAV-scores over time. Especially the experience product disturbs such an unequivocal pattern. So, it seems that effects may appear *within* the search product, and *within* the experience product (although for the experience product to a lesser extent). To check for possible effects, separate ANCOVAS were conducted for both types of products. So, these ANCOVAS only take the ADV and TIME variables into account.

In appendix 3, table 3a and table 3b, the results are listed of the separate ANCOVAS for the search and the experience product, respectively. As the PROD variable is omitted here, the focus is on:

1. The interaction between advertising in general (i.e. advertising present vs advertising absent) and time: ADV (3 vs 1 + 2) x TIME.
2. The interaction between the modality of advertising (i.e. informational vs transformational) and time: ADV (2 vs 1) x TIME.

For the search product (see appendix 3, table 3a), advertising in general does not lead to higher BAV-scores: the average BAV-score for informational and transformational advertising does not differ statistically significantly from the average BAV-score for the control group[14]. So, advertising in general does not yield significant effects. However, the *modality* of advertising may be a crucial factor in the advertising - BAV relationship. For the search product, the interaction between the modality of advertising and time is statistically non-significant in contrasting post-test 2 with post-test 1

14: In contrasting post-test 2 with post-test 1, p=0.20, and in contrasting post-test 3 with post-test 1, p=0.35.

(p=0.29), but this interaction is statistically significant in contrasting post-test 3 with post-test 1 at p=0.01. From figure 6.2a, it may be derived that time derogated on the effect of informational advertising, but that time contributed to the effect of transformational advertising. So, after a certain period of time, transformational advertising appears to be more effective for the search product than informational advertising. Furthermore, a simple contrast makes it clear that there is a trend for the search product indicating that the BAV-scores are higher for transformational advertising than for the control group (between post-test 3 and post-test 1: p=0.07).

For the experience product (see appendix 3, table 3b), advertising in general does not lead to higher BAV-scores, nor does one of the modalities of advertising seem to result into statistically significant higher BAV-scores. However, on the basis of figure 6.2b, one may infer differences in BAV-scores at post-test 2. To check on these differences, an additional ANCOVA was employed in which, besides the PROD variable, the TIME variable has also been discarded (in order to detect significant differences per post-test).

In appendix 3, tables 4a and 4b, the results of the additional ANCOVAS are reported for respectively the search and experience product (only the ADV variable is taken into account here). Again, the focus is on the effect of advertising in general (i.e. advertising absent vs advertising present: 3 vs 1 + 2), and on differences in effectiveness of informational vs transformational advertising (i.e. 2 vs 1). For the search product, the effect of advertising in general does not yield statistically significant effects in either post-test. So, again one may conclude that advertising in general does not result in higher BAV-scores for the search product. However, the *modality* of advertising is relevant here. After all, a trend is found for informational advertising to be more effective than transformational advertising at post-test 1 (p=0.07). At post-test 3, transformational advertising is however more effective than informational advertising (p=0.04). A simple contrast also shows clearly that transformational advertising differs from the control group at post-test 3 (p=0.03). So, initially, informational advertising appears to be more effective, whereas after a period of time, transformational advertising appears to be more effective. For the experience product, no statistically significant effects are found to contribute to BAV from advertising in general. However, regarding the modality of advertising, a trend is to be found at post-test 2 showing informational advertising to be more effective than transfor-

mational advertising ($p=0.09$). This trend is not, however, found at post-test 3 ($p=0.32$).

To recapitulate on testing the two hypotheses, it can be concluded that the results do not support both hypotheses. Although the two hypotheses are not upheld, the propositions on which hypothesis 2 was based are partially upheld. After all, for products with predominantly search cues, transformational advertising contributes more to BAV than informational advertising (this is in line with proposition 3.17a), although time is needed to establish the hypothesized effect. For the product with predominantly experience cues, a trend was found for informational advertising to be more effective than transformational advertising (this is in line with proposition 3.17b), although this trend disappeared in the final post-test. In the following section, the results reported above are further elaborated upon.

6.4 Discussion and conclusions

In the current section, the results of the experiment are discussed first. In this discussion, factors will be reviewed that may have inhibited the effect of advertising on BAV. This section is closed off with some major conclusions on influencing BAV through advertising.

An elaboration upon the results found

In the experiment reported in this chapter, three variables were manipulated that were thought to influence BAV. As figures 6.2a and 6.2b have already made clear, an unequivocal pattern for the search and the experience product is lacking. Especially the BAV-scores of the experience product deviate from what one may expect. Below, the influence of advertising on BAV for the search and the experience product are discussed separately.

For the search product (i.e. Krantz), transformational advertising appeared to be more effective than informational advertising in post-test 3. Initially, however, informational advertising tends to be more effective. The reason for this initially opposite tendency may be ascribed to the test situation. Unfortunately, the informational advertisement contained information on three aspects that were not listed in the descriptions used in the magnitude esti-

mation task[15]. So, initially, this extra information in the informational advertisement may have led to added value. Eventually, this tendency diminished, in favour of the transformational advertisement (see the results of post-test 3). For the search product, the time interval between exposures facilitated the effect of transformational advertising on BAV. In our opinion, the results corroborate the proposition that transformational advertising leads to higher BAV-scores than informational advertising for products with predominantly search cues.

For the experience product (i.e. Aisha), the BAV-scores of the three conditions hardly differ at post-test 1. In post-test 2, there is a tendency for informational advertising to result in higher BAV-scores. This tendency however diminishes in post-test 3. The tendency that appears in post-test 2 may be explained by the so-called 'sleeper effect' (Aaker et al., 1992 p.362) and by the 'dissociative cue hypothesis' (Hannah and Sternthal, 1984)[16]. Hannah and Sternthal state, that according to this hypothesis:

> *...the immediate persuasive impact of an otherwise compelling message is inhibited because of its association with a low credibility source or some other discounting cue. With the passage of time, however, the message becomes dissociated from the discounting cue, resulting in increased message influence.*

For the informational advertisement of Aisha lipstick, a discounting cue may have been the lipstick itself. In the informational advertisement the copy communicated the kiss-proof character of the brand. In the magnitude estimation task, subjects were allowed to judge the lipstick by testing them on their hands. In testing the Aisha lipstick, it frequently appeared that the lipstick could be easily spread out on the hand. In other words: the copy of the advertisement conflicted with the intrinsic qualities of the brand, and these intrinsic qualities may have performed as a discounting cue. Consequently, when brand and blind scores were administered directly after an exposure to the informational advertisement (i.e. post-test 1 and post-test 3), the resulting BAV-scores were lower than when brand and blind scores

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15: These three aspects are: the airtight seal of the thermos jug, the automatic switch-off of the coffee-maker after filling the thermos jug, and the design of the Krantz Thermos-café.

16: Another explanation may be found in the wear-out of the information content. Pechmann and Stewart (1990) state that a condition for wear-out is, that the advertisement should be 'worn in'. As wear-in is questionable here, the explanation of the sleeper effect is preferable over the explanation of wear-out.

were administered after the period of delay of 1 week (i.e. post-test 2). Recapitulating on the experience product, it *seems* that informational advertising is more effective than transformational advertising. However, due to a dissociative cue, this tendency did not appear to be a statistically significant effect. Below, several alternative factors are reviewed that may have inhibited the effect of advertising on the BAV for the experience product.

Alternative factors that may have inhibited the effect of advertising on BAV

Above, it was concluded that for the experience product, the expected effects were not as strong as was hypothesized. Besides the factor mentioned above (i.e. the discounting cue), for this product, other factors may also have inhibited the effect of advertising on BAV. Such a possible factor may have been the fictitious BN used. As a matter of fact, there is a possibility that the BN Aisha (and maybe also Krantz) triggered certain positive feelings by themselves that were enough to invoke substantial BAV-scores[17]. If this were the case, these initially high BAV-scores may have left less space for the advertisements to increase BAV. To check whether this happened, t-tests were employed on pre-test scores to check whether these BAV-scores actually differ from zero. In table 6.4, t-values are listed for the total sample of subjects (i.e. the 'pooled data') and for the three ADV conditions separately. From the pooled data (see first part table 6.4), it appears that the BN Krantz invoked less positive feelings than the BN Aisha. For Aisha, the average pre-test score for the total sample of subjects differs from zero at the $p \leq 0.05$ level. So, on the basis of this finding, it seems that the BN Aisha did leave little space for the informational and transformational advertisements to increase BAV. In order to actually answer the question whether the initial strength of the BN Aisha may have influenced the results of the ANCOVA, the second part of table 6.4 may be of help. From the second part of table 6.4 one may infer that for the experience product the pre-test score of the control group is remarkably higher than the pre-test scores of the 'informational group' and the 'transformational group'. However, these BAV-scores for the control group strongly decrease after the pre-test (from 4.25 in the pre-test to 0.76, -0.12 and -0.42 in post-test 3) (see table 6.3). Due to this strong decline, the effect of informational and transformational advertising would only be enhanced. After all, the effect of in-

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17: For a discussion on this, see section 3.3.1 on the Joyce principle in invoking BN associations.

formational and transformational advertising on BAV is determined by contrasting this effect with the BAV-scores of the control group. Hence, if the BAV-scores of the control group decrease, an increase of BAV-scores for informational and transformational advertising results in a statistical significant effect sooner. So, the relatively high pre-test score of the control group cannot be the cause of the lack of statistical significance of informational and transformational advertising for the experience product.

Table 6.4: Results of t-tests indicating whether pre-test scores differ statistically significantly from zero.

	Search prod. (Krantz)			**Experience prod. (Aisha)**		
	Mean	*Std dev*	*t-value*	*Mean*	*Std dev*	*t-value*
Pooled data	-0.44	7.61	-0.63	2.19	12.22	1.95**
Informational	-0.70	3.23	-1.35	1.40	11.34	0.77
Transformational	0.22	10.12	0.14	0.93	12.54	0.46
Control group	-0.85	7.95	-0.67	4.25	12.76	2.08**

For 'pooled data', N=120 (df=119). For 'informational', 'transformational', and 'control group', N=40 (df=39). **: $p \leq 0.05$ (one-tailed).

Another factor that may have derogated on the effect of advertising on the BAV of the experience product, is the creative expression of the advertisements. Above, it was already discussed that the content of the advertisement (i.e. the message) may contradict with product experiences. Besides the content of the advertisement, the creative expression may also have interfered with the effectiveness of the advertisement on BAV. Although the advertisements were adapted to criticism given in depth interviews, this is not a guarantee for effectiveness. If a creative expression is not appealing to subjects, BAV cannot increase. In such a case, the subjects will almost completely fail to process the advertising information, even if they are frequently exposed to these advertisements. Regarding the search product,

both advertisements seemed to have an impact on BAV (initially the informational advertisement, and later the transformational advertisement). So, both creative expressions were probably appealing enough to subjects. The same may be concluded for the informational advertisement for the experience product (although the content of the copy did not match the product experiences). However, the transformational advertisement for the experience product did not produce any effect at all. Here, the creative expression of the advertisement may be called in question.

Finally, one may doubt whether the number of times subjects were exposed to the advertisements of the experience product was enough to produce a significant advertising effect on BAV. On the basis of results of a meta-analysis reported by Bornstein (1989) and on the basis of a review on studies by Pechmann and Stewart (1990), it was decided to expose subjects to the advertisements twice in which a period of delay between exposures was taken into account. Although this number of exposures proved to be sufficient for the search product, it is doubtful whether two exposures were enough for the experience product. If Pechmann and Stewart's view is adopted, then three exposures would have been more suitable for the experience product. However, the time interval of 1 week that was taken into account in this experiment, may be regarded as a valuable compensation for a third exposure. Also, the time interval of 1 week allowed the sleeper effect to be effective. So, if all exposures had been amalgamated into one session, the trend that was reported at post-test 2 for the experience product would probably not have occurred. After all, the sleeper effect may only become effective with the passage of time.

Based on these notions, the explanation of the dissociative cue seems to be the most valid explanation for the lack of a statistically significant effect, at post-test 3, of informational advertising on BAV for the experience product. For the transformational advertisement of the experience product, wear-in did not occur; the most probable explanation seems to be that the creative expression of this advertisement did not appeal to a majority of the subjects. A number of major conclusions on influencing BAV through advertising are presented below.

Conclusions on influencing BAV through advertising

In this chapter, an experiment was described in which BAV was influenced through advertising for two non-existing brands. Recapitulating on the results of the experiment reported in this chapter, it may be concluded that:

1. For products with predominantly search cues, transformational advertising contributes more to BAV than informational advertising. However, a minimum number of exposures is needed to establish such an effect.
2. For products with predominantly experience cues, there are empirical indications that informational advertising contributes more to BAV than transformational advertising. Further research is needed to corroborate this finding.
3. This experiment did not prove that the effect of advertising in general is greater for products with predominantly experience cues than for products with predominantly search cues. The predicted effects probably did not emerge because the message of the informational advertisement of the experience product conflicted with actual product experiences, and because the creative expression of the transformational advertisement of the experience product did not appeal to the subjects.

On the basis of the results reported above, one may conclude that, in general terms, the design of the experiment was sufficient to influence BAV (i.e. a pre-test with multiple post-tests taking a period of delay into account). However, in future studies, more exposures, and a fourth post-test, may be employed in the second session to see whether the effects detected remain intact. Also, in future studies more attention should be paid to the match of the copy of the advertisements and subjects' product experiences. Furthermore, this type of experiment may be replicated by using different products with different BNS, by using different operationalizations of informational and transformational advertising, and by using different subjects.

In chapters 4, 5, and 6, two empirical studies and one experiment were described that focused on different aspects of BAV. The research questions of these studies and the experiment were based on the theoretical framework described in part I of this thesis. In chapter 7, the value of the results of chapters 4 through 6 for theoretical and empirical insights on BAV will be clearly outlined.

PART III

CONCLUSIONS AND IMPLICATIONS

CHAPTER 7
CONCLUSIONS AND MANAGERIAL IMPLICATIONS ON BRAND-ADDED VALUE

In this final chapter, three topics are discussed. First, in section 7.1, the contribution of this thesis to the body of knowledge on brand-added value (BAV) is considered. Second, in section 7.2, the managerial implications of the research findings of this thesis are discussed. Finally, in section 7.3, the major areas for future research on BAV are outlined.

7.1 Contribution to the body of knowledge on brand-added value

In this section, the discussion will revolve around the contribution of this thesis to the body of knowledge on BAV. First, conceptual findings are briefly reviewed by focusing on the theoretical model showing how BAV functions. This review is followed by a conclusion on the factors that may contribute to the magnitude of BAV. On the basis of these 'conceptual' conclusions, the discussion will continue with an explanation of the advantages of using the BAV-construct and with a discussion on the advantages of using the measurement instrument for BAV as developed in this thesis. In elaborating upon the advantages of using the BAV-construct, comparisons will be made with other constructs. Also, in discussing the measurement instrument for BAV, comparisons will be made with other instruments that focus on the value of a brand to consumers.

Theoretical model on BAV

In chapter 1 of this thesis, two major characteristics of branding were discussed: (1) differentiation and (2) communication of differentiation. The theoretical model showing how BAV functions is reviewed below in the light of these two characteristics.

The characteristic 'differentiation' refers to the fact that a brand may be distinguished from competing brands by differentiating it on intrinsic and extrinsic cues. In modelling the relationship of intrinsic and extrinsic cues with BAV, three elements of BAV are distinguished: perceived quality, brand associations, and BN-awareness. The intrinsic and extrinsic brand cues may

contribute to one or more of these elements of BAV. The relationship between intrinsic and extrinsic cues, elements of BAV, and BAV itself is depicted in figure 7.1. As may be derived from figure 7.1, the intrinsic brand cues may only contribute to BAV by influencing the perceived quality of a brand. However, the influence of intrinsic cues on BAV is limited, although usually a threshold value of these cues is required to make a positive BAV possible. As may also be derived from figure 7.1, the extrinsic cues may contribute to BAV by influencing the perceived quality of the brand, by adding associations to the brand and / or by increasing the BN-awareness of the brand. Advertising may for example, at one and the same time, influence the perceived quality of a brand by communicating a USP, add associations to the brand by invoking relevant immaterial associations and increase the BN-awareness by priming the BN (see also the example given in box 2.1). In influencing BAV, it should be realized that, in most cases, extrinsic cues can be changed more easily than intrinsic cues.

Brand cues	Elements of BAV	Value provided

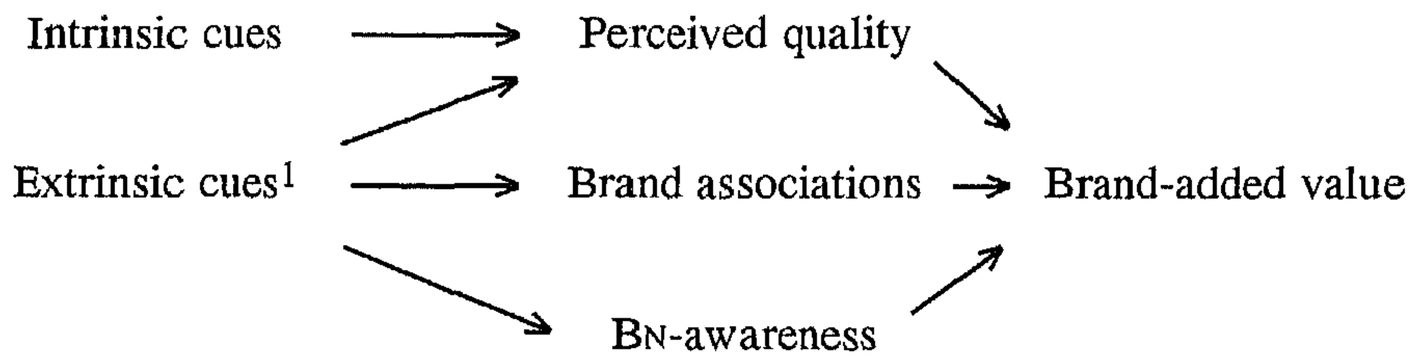

Figure 7.1: Linking the brand cues (intrinsic vs extrinsic) with BAV through the elements of BAV.

Above, it was mentioned that 'communication of differentiation' is another major characteristic of branding. Differentiation of a brand on intrinsic cues may be communicated to consumers by providing rational information, whereas differentiation of a brand on extrinsic cues may be communicated to consumers by providing emotional information (see figure 1.2).

1: Extrinsic cues comprise: product-related cues (packaging, BN, and labelling information among others), price, distribution, and advertising.

In chapter 1, it was stated that a producer may add information to his brand by communicating rational and emotional information. To consumers, this added information may become a source of added value (i.e. BAV). However, the effectiveness of added information seems to be dependent on the type of information added in combination with the type of product (i.e. predominantly search vs predominantly experience cues). Due to the fact that intrinsic cues are revealed for products with predominantly search cues, information on these cues (i.e. rational information) will not add value to the brand. So, for this type of product, the only information that may add value to a brand is emotional information (i.e. transformational advertising). The results of the experiment reported on in chapter 6 corroborated this hypothesis: for a product with predominantly search cues, transformational advertising contributes more to BAV than informational advertising.

For products with predominantly experience cues, both rational and emotional information may add value to a brand. However, it is assumed that consumers eventually buy a product for its intrinsic cues. So, on the basis of this additional assumption, informational advertising (i.e. rational information) is supposed to add more value to a brand that is characterized by predominantly experience cues than emotional information. The results of the experiment reported on in chapter 6 showed clearly that the trend for informational advertising contributing to BAV only holds for a product with predominantly experience cues. Further research is required to find out whether informational advertising indeed adds more value to a product with predominantly experience cues than transformational advertising. Now, the focus will turn to the magnitude of brand-added value.

The magnitude of BAV

Besides defining and measuring BAV, this thesis also focused on differences between product classes in their sensitivity to BAV. In chapter 3, differences between product classes in their sensitivity to BAV were labelled as differences in the *magnitude* of BAV (i.e. MBAV). In section 3.1, several factors were discussed that may explain differences in MBAV between product classes. In chapter 5, differences in MBAV between product classes were investigated in which several of the factors discussed in section 3.1 were taken into account. Below, the focus is on the knowledge gained with respect to differences in MBAV between product classes.

In this thesis, much attention has been paid to the difference between search vs experience cues. In chapter 2, it was stated that for products with predominantly search cues, the influence of the BN in the consumer decision-making process is less prominent than in the case of products with predominantly experience cues. For a product with predominantly experience cues, the intrinsic cues are hidden; hence, the consumer is forced to use extrinsic cues (like the BN) to judge the brand prior to purchase. However, if a brand's intrinsic cues are revealed (as in the case of products with predominantly search cues), the consumer is able to judge the brand on these cues prior to purchase. So, in that case, the influence of the BN in the consumer decision-making process will be less prominent. Nelson's theory on search vs experience cues (Nelson, 1970; 1974), states that the influence of a BN (and hence the sensitivity to BAV) is higher for products with predominantly experience cues (intrinsic cues are hidden) than for products with predominantly search cues (intrinsic cues are revealed) (see figure 2.2). The results of the study 'differences in MBAV between product classes' corroborated the proposition that MBAV is higher for products with predominantly experience cues than for products with predominantly search cues, although it appeared that this factor closely resembles the distinction between durable and fast-moving consumer goods. On conceptual grounds, the explanation of search vs experience was favoured over durable vs fast-moving consumer goods.

Another factor that may influence MBAV, is the factor functional vs expressive cues. If brands play a major role in conforming or non-conforming behaviour, then a product class is expected to be more sensitive to BAV. Consequently, MBAV will be higher for products that have predominantly expressive cues than for products that have predominantly functional cues. The results of chapter 5 showed clearly that MBAV is indeed higher for products with predominantly expressive cues, than for products with predominantly functional cues, although this factor is of less influence on MBAV than the factor search vs experience cues. Regarding the factor functional vs expressive cues, one may conclude that a BN may be an important tool in the (non-) conforming behaviour of consumers. A fourth factor that was supposed to influence MBAV is consumer involvement. Regarding consumer involvement, it was expected that highly involved consumers invest more effort into comparing brands on intrinsic cues. As a consequence, the influence of the BN (an extrinsic cue) should decrease. So, high involve-

ment is most likely to correspond with a low MBAV. The results of chapter 5 however made it clear that personal relevance (an aspect of consumer involvement) exerted no statistically significant effect on MBAV.

Above, a theoretical model for BAV was elaborated upon and the factors that may contribute to MBAV were discussed. Now the time has come to point out what the advantages are of using the BAV-construct and which benefits may be accrued in using the measurement instrument for BAV as developed in this thesis.

Advantages of using the BAV-construct

In chapter 1 of this thesis, the BAV-construct was introduced from the perspective of branding. In elaborating upon the advantages of using the BAV-construct over other, related constructs, this perspective (i.e. branding) should be kept in mind. In order to answer the question of what the advantages are of using the BAV-construct compared to constructs like 'perceived quality of the brand', 'attitude towards the brand', and 'brand equity', let us first review some characteristics of the BAV-construct.

In elaborating upon the BAV-construct, a distinction was made between the true value of brand characteristics, the brand cues that a consumer is able to perceive, and the consumer's perceived value of brand cues. In this, BAV was positioned as a consumer's perceived value of the brand name (BN) (with BN being a brand cue). Accordingly, BAV was defined as 'the contribution of the BN and its related connotations to the consumer's valuation of a (total) branded article'. By using this definition, the emphasis was on separating the value that the BN may have to consumers from the value that the total branded article may have to consumers (the latter value has also been referred to as 'attitude towards the brand'). In our opinion, this separational method is to be preferred over methods that do not try to separate the value of the BN from the value of the total branded article (like attitude towards the brand). After all, the value that a BN may be assigned by consumers may offer more insight into the effect of a brand strategy, than the value assigned to a total branded article (because all possible brand cues may exert their influence on the total branded article value). In the light of this, the BAV-construct is, in our opinion, also preferable to the construct 'perceived quality of the brand'. Whereas perceived quality of the brand is limited to consumers' valuations on a part of the physical product, BAV may also

comprise immaterial associations that may distinguish one brand from another. Especially when competition is high, immaterial associations may become more important in a brand strategy. It was stated in section 2.3 that, essentially, brand equity concerns the value of a brand and that this value can be defined from either the perspective of consumers, or the perspective of the company. In contrasting BAV with brand equity, it is concluded that BAV is a synonym for brand equity, if, in using the brand equity construct it is looked at from the perspective of the value of a brand to consumers.

Recapitulating, it can be stated that the BAV-construct is a valuable construct from the perspective of branding. Not only does BAV focus on aspects that are linked to the BN, but the BAV-construct also aims at separating the value of the BN from the value of the total branded article. Hence, by using the BAV-construct, more insight may be gained into the effect of a brand strategy than if one uses constructs like 'attitude towards the brand' and 'the perceived quality of a brand'. Next, the focus will turn to the measurement instrument for BAV that was developed in this thesis. In doing so, this instrument will be compared with other measurement methods.

The measurement instrument for BAV

In chapter 4 of this thesis, the BAV-construct was operationalized and BAV was measured for two sets of brands in order to check the reliability and validity of the measurement instrument. On the basis of the conceptual definition of BAV, in section 4.1, an operational definition of BAV was given: 'The BAV of a branded article is the difference in a consumer's preference between the brand with, and the brand without its BN'. The actual measurement instrument for BAV was based on this operational definition. Following this definition, subjects have to judge a set of brands with the BN present and the same set of brands with the BN absent. Judging product alternatives with BN present results in a so-called 'brand score'; judging product alternatives with BN absent, results in a so-called 'blind score'. The BAV-score of a subject is determined by subtracting the blind score from the brand score (i.e. BAV = BRAND - BLIND) (see formula 4.1). By selecting a representative sample of subjects, average BAV-scores may be determined for a number of brands within a product class. The scoring task to be used in judging the brands, is a magnitude estimation task in which subjects judge product alternatives according to preference. In this thesis, a magni-

tude estimation task of 'drawing lines' was used in which the reference stimulus has a fixed value (a line length of 50 millimetres). This magnitude estimation task can at best be employed in a laboratory setting. The time needed to perform such a task, is about 25 minutes per subject for judging a set of 10 brands.

By means of an empirical study using brands of beers and computers as stimuli, the reliability and validity of the measurement instrument for BAV was checked. The results indicated that reliability is in general satisfactory, although the blind scores may not always be reliable. Especially in the case of products with predominantly experience cues, the reliability of the blind scores may be questionable. Therefore, the obvious choice was to employ a paired comparison task (besides the magnitude estimation task) using blind product alternatives as stimuli. The results of such a paired comparison task may be used to infer whether the blind scores of the magnitude estimation task are reliable or not. If the results of a paired comparison task indicate that blind scores are reliable, BAV-scores may be computed by following the procedure described above (i.e. BAV = BRAND - BLIND). However, if the results of a paired comparison task indicate that blind scores are not reliable, BAV-scores should be equated to the brand scores minus the value of the reference stimulus (see formula 4.4). So, in such a case, respondents cannot discriminate between the blind product alternatives. If one checks for this possible lack in reliability of the blind scores, and if one takes the necessary steps to overcome this problem, one may state that the instrument for measuring BAV is a reliable instrument. Besides reliability, the validity of the measurement instrument was also checked for. With respect to the brand scores (which are an important element of the BAV-scores), checks on convergent, content, and concurrent validity proved to be satisfactory. Checks on convergent, concurrent, and face validity of the BAV-scores also proved to be satisfactory[2].

Although a reliable and valid measurement instrument for BAV was developed in this thesis, one may argue that other methods may also suffice to measure BAV. In discussing the brand equity construct at the end of chapter 2, various measurement instruments for measuring the value of a brand

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2: The checks on convergent and content validity of the brand scores and the checks on convergent and face validity of the BAV-scores were reported on in chapter 4. The checks on concurrent validity of both brand and BAV-scores were reported on in chapter 5.

were referred to. In discussing definitions of brand equity that stress the value of a brand to consumers, the method used by Kamakura and Russell (1993) was elaborated upon. The method described by Kamakura and Russell focuses mainly on the perceived quality aspect of brand equity, whereas BAV focuses on both perceived quality and brand associations. Also, the measurement instrument for BAV is a more direct method of determining the value of a brand compared to the method of Kamakura and Russell. Hence, BAV is a more easily interpretable measure for the value of a brand. Other methods discussed in chapter 2 that measure brand value from the perspective of the consumer, are methods that are based on price comparisons (Blackston, 1990; Crimmins, 1992). In chapter 5 of this thesis, a method was used in which prices were the dependent variable. The results of this so-called 'dollar metric task' were compared with the measurement instrument for BAV that is based on the magnitude estimation task of drawing lines. In comparing both methods, it appeared that the dollar metric task is more sensitive to factors that relate to the actualization of BAV[3] and to consumers' overestimation of price differences between brands (compared to the task of drawing lines). For example on the Dutch market, due to excise duties, consumer prices are mostly the same for different brands of cigarettes (the prices vary mainly as a function of quantity differences). Although various brands of cigarettes may be clearly differentiated in consumers' minds, and although consumers may show brand-loyal behaviour towards a brand of cigarettes, these consumers may not be able to express an added value in a price premium due to almost similar consumer prices. So, for these markets, price-based methods for measuring BAV may be less sensitive than the measurement instrument for BAV described above. In our opinion, caution is advised in using methods solely based on price comparisons.

Concluding on the measurement instrument for BAV, it may be stated that the method reported on in this thesis is reliable and valid. In comparing the measurement instrument for BAV with other methods, the conclusion may be drawn that the measurement instrument for BAV is a relatively direct method for measuring the value of a brand and may therefore offer a relatively clear view of differences in values between brands. In our opinion, the measurement instrument for BAV is also to be preferred over instruments that are based on price comparisons because the measurement instrument

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3: Factors that relate to the actualization of BAV were elaborated upon in section 3.1.

for BAV is less sensitive to factors that relate to the actualization of BAV. Above, the contribution of this thesis to the knowledge of BAV was discussed. Now, the discussion will revolve around the managerial implications of the research findings of this thesis.

7.2 Managerial implications

In this section, the focus is on the managerial implications of the results reported on in part II of this thesis. First, the usefulness of the measurement instrument for BAV for managerial decision-making will be discussed. Subsequently, an outline is given of the managerial implications of differences in the magnitude of brand-added value between product classes. Finally, the managerial implications of how advertising may influence BAV are discussed.

The usefulness of the measurement instrument for BAV for managerial decision making

In section 7.1, it was concluded that a reliable and valid instrument for measuring BAV has been developed in this thesis. Regarding this instrument, the relevant question here relates to how one can use this instrument as a tool in the managerial decision-making processes. Below, this question is addressed by using the BAV-scores reported in chapter 4 (see tables 4.10a and 4.10b on beers and computers, respectively)[4]. Regarding the BAV-scores of these brands of beers and computers, these scores may clarify to what degree consumers perceive these brands to be different. In managerial terms, one may also state that the relative BAV-score of each brand indicates to what extent a brand's brand strategy has been successful compared to competing brands. So, one may infer from table 4.10a that the brand strategy of Grolsch beer has been more successful than the brand strategy of Bavaria beer. The same can be said about Olivetti vs Kangaroo computers (see table 4.10b). However, one should realize that these BAV-scores are instantaneous measurements; as a consequence, the absolute values and the relative positions of these BAV-scores may change in time. To gain insight into the effect of managerial decisions on BAV and to gain insight into the

4: These BAV-scores are based on a non-representative sample of the Dutch population (i.e. students) and were administered in the period 1988-1989. The interpretations made, serve as an illustration only.

effect of external factors on BAV, longitudinal tracking of BAV-scores is in fact a necessity (below, this longitudinal tracking of BAV-scores for a representative sample will be referred to as a 'BAV-monitor'). By monitoring BAV for a number of competing brands, changes in BAV-scores may serve as a management information benefit. Not only may a BAV-monitor provide insight into the effect of one's own brand strategy; a BAV-monitor may also provide insight into the effect of competitors' brand strategies. Besides providing insight into the effect of managerial decisions on BAV, a BAV-monitor may also provide insight into the effect of external factors on BAV. For example: negative publicity on a brand may derogate on BAV. In such a case, a BAV-monitor may not only give insight into the degree of damage caused by negative publicity on a brand, but a BAV-monitor may also provide insight into when a harmed brand has fully recovered. In other words: a BAV-monitor may function as a sort of 'barometer', indicating the degree to which BAV is positive or negative.

Besides using a BAV-monitor as a barometer, one may also use such a monitor as a guide-line in decision making. For example, a BAV-monitor may help management in allocating scarce marketing resources (like advertising) in a responsible way. So, a BAV-monitor may render insight into which brand(s) in the brand portfolio offer(s) the best opportunities for enlarging the company's competitive power. Consequently, one may decide whether or not a brand needs extra (financial) support. Besides a BAV-monitor having benefits for the brands held in one's own portfolio, such a monitor may also be useful when competitor-owned brands are considered for acquisition (after all, competitor-owned brands may improve a firm's competitive position). In the quest for acquiring brands, a BAV-monitor may indicate which brands should be considered for acquisition. Furthermore, a BAV-monitor may provide insight into all kinds of practical situations in which information on the present BAV of a brand is a crucial factor in the managerial decision-making process. For example: on the basis of a BAV-monitor it is possible to decide whether a brand is strong enough to be used for transnational or trans-category extensions.

Besides solely measuring BAV-scores for a BAV-monitor, BAV-scores may also be of help in brand valuation. In section 2.3 (under 'brand equity'), two different methods of brand valuation were referred to: the FENO/INTAA method (De Smeth, 1991) and the INTERBRAND method (Penrose, 1989). It

was concluded in that section, that in brand valuation, a financial track-record is usually used to determine the net present value of expected future incomes. A marketing track-record of the brand is used for assessing the risks related to the forecasted future incomes of a brand (in order to determine the interest rate). If the BAV-construct may be of help in brand valuation, one should realize that BAV should be used as a factor in the marketing track-record, and not as a factor in the financial track-record. A problem facing brand valuation is that the factors of the marketing track-record may, to a large extent, overlap[5]. For example: a brand that has a high market share, will probably be relatively stable in time, and is most likely to have the highest BN-awareness of the product class. As a consequence, the total score of the marketing track-record of such a brand may become overweighted. So, there is a risk of these total scores for A-brands becoming overweighted, whereas there is a risk of these total scores for C-brands becoming underweighted. In general, polarization of these total scores is a real threat for A- and C-brands. A solution to this problem is to be found in marketing track-record factors that are mutually exclusive. Here, the BAV-construct may be of help. In using the BAV-construct as a marketing track-record factor, material and immaterial brand associations and BN-awareness are taken in consideration (after all, these are elements of BAV; see figure 7.1). So, BAV covers many factors relevant for determining a brand's strength, and hence, making BAV a suitable factor to be used in brand valuation. Following Aaker's taxonomy (1991 p.16 ff), it can be stated that other factors that may be used in a marketing track-record (besides BAV) are brand loyalty and other proprietary brand assets (after all, both brand loyalty and other proprietary brand assets may contribute to the value of a brand for a firm)[6]. In using these factors, a brand value for each geographical market in which the brand is being sold can be computed. Further

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5: The INTERBRAND method (Penrose, 1989) distinguishes seven so-called 'brand-strength factors': leadership (leadership in the market is more valuable), stability (period of establishment and consumer loyalty), market (if a market is relatively vulnerable to technological or fashion changes, brands are less valuable), internationality (international brands are more valuable), trend (brands with a long-term trend are more valuable), support (brands with consistent investments are more valuable), and protection (legally registered brands are more valuable) (for examples, see Interbrand, 1990). The FENO/INTAA method (De Smeth, 1991) distinguishes six so-called 'brand-performance scores': market share, market penetration, market coverage, BN-awareness, legal protection, and share-of-voice (also called the 'support factor').

6: Regarding other proprietary brand assets, Aaker (1991 p.16) distinguishes patents and trade marks (i.e. the legal protection of a brand) and channel relationships.

research should show whether BAV, brand loyalty, other proprietary brand assets and market size are mutually exclusive enough to be considered as marketing track-record factors. If it appears to be possible to use BAV with other mutually exclusive factors in a marketing track-record, BAV may serve as a component in brand valuation.

To conclude on the usefulness of the measurement instrument for BAV for managerial decision making, one may state that a BAV-monitor may serve several managerial purposes. Furthermore, BAV may possibly serve as a major factor in the marketing track-record to be used in brand valuation.

Managerial implications of differences in the magnitude of BAV

In chapter 5, several conclusions were drawn with respect to differences in MBAV. Although the results of a Delphi study on BAV indicated that marketing practitioners think that the factor functional vs expressive cues is of most influence on MBAV (Riezebos and Pruyn, 1991), the major conclusion of chapter 5 is that the factor search vs experience cues is of most influence on MBAV. For example, in the Delphi study, the marketing practitioners indicated that eggs were least sensitive to BAV, whereas the empirical study indicated that eggs are to a large extent sensitive to BAV. The major conclusion to be drawn here, is that the success of a brand strategy is more dependent on whether a product can be characterized as having predominantly experience cues than on whether a product can be characterized as having predominantly expressive cues. So, although eggs are characterized as having predominantly functional cues, brand strategies may be successful for eggs because this product can be characterized as having predominantly experience cues. The relevant question to be addressed below, seems to be related to the managerial implications of this difference in sensitivity to BAV between products with predominantly search, and products with predominantly experience cues.

In chapter 2, it was explained that consumers judge products with predominantly search cues mainly on the basis of intrinsic cues. As a consequence, the influence of extrinsic cues (like the BN) is relatively small. Consequently, a manager of a product with predominantly search cues should realize that material differentiation of the brand is extremely important (like design and special features). Consequently, one major aspect managers of products with predominantly search cues should focus on, is whether the brand meets the material characteristics desired by consumers. Although

products with predominantly search cues are mainly judged on intrinsic cues, the BAV of a brand may still be important in competing with other brands. After all, the results of the experiment reported on in chapter 6, made it clear that advertising may add value to the brand by giving information on the brand that is not present in the brand itself (i.e. through transformational advertising). In this way, advertising may link positive associations to the brand. Consequently, the BN may function as a halo construct, by influencing evaluations on intrinsic cues of the brand.

Besides transformational advertising, several other instruments may be used in the brand strategy of a product with predominantly search cues. A possible way to increase the BAV of a brand, is by stressing the importance of experience cues. The distinction search vs experience cues has been referred to in this thesis as simply *predominantly* search and as *predominantly* experience cues. However, as a matter of fact, most products with predominantly search cues may also have experience cues. If consumers are made aware of the fact that an experience cue of a product with predominantly search cues is a major differentiating cue of a brand, and that this cue may serve important benefits for the consumer, the BAV of that brand may benefit from this information. For example: coffee-makers seem to be judged by consumers mainly on design and on revealed cues like the number of cups it can process and whether or not it has a drip-stop. Now, if a producer is able to convince consumers that the quality of the inside percolation system of a coffee-maker is very important in choosing the right coffee-maker, the sensitivity of coffee-makers to BAV may increase (because the percolation system of a coffee-maker is a hidden cue). Another strategy that may be used for products with predominantly search cues, is, if the product class is characterized as having predominantly non-functional (i.e. expressive) cues, to emphasize the expressive cues of that particular brand. After all, another conclusion of chapter 5 was that MBAV is higher for products with predominantly expressive cues than for products with predominantly functional cues. So, in marketing communication, these cues may be emphasized to fully exploit the expressive character of the product class. Regarding the price of a product with predominantly search cues, one should be aware that it may be relatively easy for consumers to trade off levels of revealed intrinsic cues with price differences between brands. So, if consumers perceive price differences between two brands as too large, the more expensive brand will probably not be bought. In following these

guide-lines, a brand strategy for products with predominantly search cues may result in strategic and financial benefits.

Regarding products with predominantly experience cues, it was suggested in chapter 5 that little branding activity seems to be needed to invoke a substantial BAV-score. Now, what instruments may a manager use in a brand strategy for a product with predominantly experience cues? In general, a manager may use as many intrinsic and extrinsic cues as possible to differentiate his own brand. However, in using different cues to differentiate a brand, these cues should all in a similar way contribute to the perceived quality and the (immaterial) brand associations of the brand. In this respect, the level of each cue should be relatively stable in time. This holds especially for the intrinsic cues: after all, for products with predominantly experience cues the consumer cannot judge the intrinsic cues prior to purchase. As a consequence, the consumer relies mainly on the BN. For example: if a consumer buys a can of Coca-Cola, he most certainly knows what is inside; a carbonated soft drink with a taste that is similar to previous consumption experiences. In other words: the BN Coca-Cola has a reputation on which the consumer may decide blindly. Exactly this reputation that a BN radiates is extremely important for products with predominantly experience cues. Due to the BN, a consumer almost knows for sure how the consumption experience of the brand will be. However, if intrinsic cues are changed, and if the consumer is aware of this, the BAV of a brand may be severely harmed[7]. So, for products with predominantly experience cues, the BN may serve as a sort of 'guarantee' to consumers. However, for some product classes it may be relatively difficult to guarantee a constant value for intrinsic cues. Especially for services and fresh-consumer products (like vegetables and dairy products), a constant value for intrinsic cues may be difficult to warrant. For services, personnel may be the weak factor in in offering a constant quality; hence training of personnel is extremely important in a brand strategy. For fresh-consumer products (i.e. milk and eggs), distribution may be the weak factor in sustaining quality; hence quality-control programmes and vertical integration of the distribution channel are important here. If one takes the necessary actions to gain and maintain a constant value of intrinsic cues, brand strategies may also be successful for these product classes.

7: For examples on this, see Palazzini (1989 p.56 ff) and Pendergrast (1993 p.354 ff) on Coca-Cola's New-Coke and Aaker (1991 p.78 ff) on Schlitz Beer.

Regarding the price of a product with predominantly experience cues, a manager should realize that it may be relatively difficult for a consumer to trade off price with intrinsic cues. So, if extrinsic cues like packaging and advertising aim at increasing the perceived quality of the brand, consumers might be willing to pay a higher price for the brand compared to competitive brands. If this is the case, A-brands may be sold at higher prices than B- and C-brands. For example, for the Dutch market, larger price differentials between brands might be acceptable to consumers for milk and eggs.

Managerial implications of the possible influence of advertising on BAV

The relevant question to be addressed below, is what modality of advertising a manager should use in the case of a product with predominantly search cues, and what modality of advertising a manager should use in the case of a product with predominantly experience cues. Regarding products with predominantly search cues, it seems that in practice, in most cases, informational advertising is used (especially for home appliances). However, in chapter 6, it was concluded that for products with predominantly search cues, transformational advertising contributes more to BAV than informational advertising. So, although it seems that many managers think informational advertising to be more appropriate for products with predominantly search cues, the results of chapter 6 indicate otherwise. One should however keep in mind that the results indicated that transformational advertising is most appropriate for increasing BAV; however, in order to increase short-term sales, informational advertising may be more effective for a product with predominantly search cues.

For products with predominantly experience cues, it appeared in the experiment reported on in chapter 6 that there was a tendency for informational advertising to contribute more to BAV than transformational advertising. So, it seems that the 'American point of view' on communication seems to be most appropriate here (see section 3.3.5)[8]. Yet, transformational advertising may also add value to the brand (although probably to a lesser extent). On the basis of practical examples one may however doubt whether informational advertising always makes sense in the case of prod-

8: In section 3.3.5, it was stated that, according to the 'American point of view', communication aims at persuasion and behaviour modification. Informational advertising fits this view best. The counterpart of this point of view is the European point of view, which corresponds with transformational advertising.

ucts with predominantly experience cues. To use the example of Coca-Cola again, one may wonder whether this brand would have been better off if it had been positioned on intrinsic cues (Coca-Cola emphasizes in commercials extrinsic cues like 'fun' and 'joy'). On first sight, this seems a rather odd idea. After all, the intrinsic cues of Coca-Cola are probably not key attributes to Coca-Cola drinkers. However, in the last decades, Pepsi-Cola attracted (young) consumers by convincing them that this brand tastes better than Coca-Cola (by using the slogan 'let your taste decide') (see Hoch and Deighton, 1989). So, in fact, Pepsi-Cola emphasized the - as they stated it - better performing intrinsic cues of their brand. By the use of this example it may be clear that intrinsic positioning may even be useful for this type of products. Yet, further research should indicate whether informational advertising indeed contributes more to BAV than transformational advertising for products with predominantly experience cues.

A final topic to be addressed regarding the influence of advertising on BAV, concerns the number of exposures needed to invoke similar effects - like the ones reported on in chapter 6 - in real-life situations. In other words: if a manager wants to increase the BAV of his brand through advertising, the question relevant here is: how many times should a consumer be exposed to advertising of brand X in order to increase BAV substantially? In the experiment reported on in chapter 6, subjects were exposed to advertisements twice, in which a period of delay of 1 week was taken in consideration. In the experiment, a significant increase in BAV-scores was established for the search product after two exposures. However, in the experiment it was a matter of *forced* exposures. In real-life situations, two exposures will probably not be sufficient to get similar results. As already stated in chapter 6, in laboratory settings, wear-out most probably occurs immediately after the third exposure (according to Pechmann and Stewart, 1990). According to these authors, in real-life situations wear-out occurs between 7 to 15 exposures during a two-month period. So, a number of about five *exposures* per month may suffice to influence BAV in real-life situations. However, consumers are exposed to ever increasing amounts of advertising nowadays[9]; hence, a manager should realize that much more than five advertisements may be needed to expose consumers to a message five times.

9: For data on the increase of commercial communication, see Franzen (1992 p.44 ff).

7.3 Major areas for future research

In this thesis, the focus has been on three empirical research questions with respect to BAV. The first research question referred to a reliable and valid measurement instrument for BAV. The second research question referred to differences in MBAV between product classes, whereas the third research question referred to the way advertising may influence BAV. All three research questions relate to BAV from the perspective of the value of a brand to consumers. In elaborating upon the major areas for future research from this consumer perspective, a distinction can be made between research questions that refer to the *content* of BAV and research questions that refer to possible *modifications* of BAV (like the third research question in this thesis on the influence of advertising on BAV).

Research questions that refer to the content of BAV

In this thesis, we more or less ignored the content of BAV by choosing to measure BAV as a holistic construct. Yet, future research may aim at revealing the content of BAV for brands within a product class. Aspects of such a content may be brand-related attributes and (immaterial) associations invoked by the brand. In other words: these aspects may relate to the perceived quality of the brand and to the brand associations. With respect to perceived quality, the aim should be on the different dimensions of quality (like performance, features, aesthetics and the like), and on the values these dimensions may have. It is to be expected that other dimensions of perceived quality are relevant for products with predominantly search cues rather than for products with predominantly experience cues. With respect to (immaterial) brand associations, taxonomies of associations may be related to personal values, situations of use and / or to consumers' life-styles. In general, one may state, that in research that aims to reveal the content of BAV, the emphasis may be on (dis-) similarities between brands within a product class and on (dis-) similarities between product classes. With respect to (dis-) similarities between product classes, the distinction between products with predominantly search and products with predominantly experience cues, may be relevant. The results of this research could be recorded in a taxonomy of material and immaterial brand associations, which a manager may use in positioning his brand. Furthermore, research may focus at detecting and explaining individual and situational differences in BAV within product classes.

Research questions that refer to possible modifications of BAV

Regarding possible modifications of BAV, five research questions may be addressed in future research:

1. What is the role of the BN itself in invoking and influencing BAV? In addressing this problem, research should focus on how to choose an appropriate BN and on how to change a BN for an already existing brand. The latter aspect is important in the globalization of brands; due to standardization of BNs, packaging and advertising costs may decrease. The results of a study on consumers' willingness to buy a brand after a change in brand name indicated that the type of positioning (i.e. intrinsic vs extrinsic) interacts with the type of product (i.e. search vs experience) (Riezebos and Snellen, 1993). The results of this study indicate that, the stronger BAV emerges, the less a brand may be 'damaged' by a change in BN. Yet, further research is needed to corroborate this proposition.
2. To what extent may product-related cues, price, and distribution-related cues influence the BAV of a brand? These cues have already been reviewed in section 3.3.2 to 3.3.4[10]. In future research, the effect of each cue on BAV may be studied by taking the distinction between search and experience cues into account. It is to be expected that the influence of these extrinsic cues on BAV is greater for products with predominantly experience cues, than for products with predominantly search cues.
3. As the results of chapter 6 mainly offered insight into the effect of advertising on the BAV for a product with predominantly search cues, the question remains to what extent advertising may influence the BAV for a product with predominantly experience cues? In answering this research question, the focus should be on informational vs transformational advertising. The guide-lines formulated at the end of chapter 6 on how to set up an experiment that may answer this research question, should be taken into account.
4. To what extent may line and brand extensions contribute to the BAV of a parent brand (see proposition 3.19), and to what extent may line and brand extensions profit from the BAV of the parent brand? In conducting research on line and brand extensions, the distinction between search and experience cues may also be a crucial factor. It is to be expected that the BAV of the parent brand is of more influence on the success of a line or brand extension for products predominantly experience cues, than for

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10: The assertions on the relationships between these cues and BAV were set out in propositions 3.9 to 3.16 of chapter 3.

products with predominantly search cues. In studying the effects of line and brand extensions on BAV, one should not only focus on the positive effects of line and brand extensions, but also on the possible negative impact of such extensions.

5. How may the value of a brand be protected against damage? In studying brand damage, it is important to bear in mind that a brand may be damaged because of bad publicity but also because of rumours (the latter being more fictitious in nature) (see Koenig, 1985; Kapferer, 1990 p.191 ff). Regarding brand damage, research should not only focus on how to restore the value of a brand that has been damaged, but also on how the value of a brand may be prevented from being damaged. Following figure 2.2, it is to be expected that products with predominantly experience cues are more sensitive to brand damage than products with predominantly search cues[11].

Research questions that refer to the value of a brand to producers

The research questions formulated above, all focus on the value of a brand to consumers. From the perspective of the value of a brand to producers, future research may aim at how the BAV-construct may be used in brand valuation. This topic has already been addressed in section 7.2 (under 'the usefulness of the measurement instrument for BAV for managerial decision making'). The research questions relevant here, are whether BAV may be used as a factor in the marketing track-record, and, if it is, which other factors should be incorporated in the marketing track-record besides BAV to determine a brand's strength? In choosing other factors besides BAV, one should take care that these factors do not overlap.

The research questions formulated above, are in our opinion the major areas for future research on BAV. The theoretical and empirical findings of this thesis may be a basis for future research.

11: In terms of Nelson (1970; 1974), one may speak here of 'negative' guidance.

APPENDIX 1

ADDITIONAL TABLES CHAPTER 4

Exhibit 1: An example of a description of a brand of computer[1]

Brand X	Standard features	Optional features
Type of processor	8088-2	8087 (mathematical) co-processor
Clock speed	8 MHz	--
Clock with battery	present	--
Power supply	150 Watt	--
Internal memory:		
- RAM-memory	640 Kb	--
- ROM-memory	64 Kb	--
External memory:		
- floppy-disk drives	2 x 5.25" of 360 Kb	3.5" of 720 Kb
- hard disk	--	20 Mb or 30 Mb
- tape-streamer	--	20 Mb, 45 Mb or 60 Mb
Extensions:		
- serial	present	--
- parallel	present	--
- for joy-stick	present	--
- for light pen	present	--
- for mouse	present	--
Expansion slots	7	--
Video card(s)	HGC 720 x 348 dots EGA 640 x 350 dots	CGA 640 x 200 dots
Keyboard	PC/XT type	PS/2 type
Mouse	--	can be delivered
Supplied software	MS-DOS, GW BASIC	--
Directions for use	in Dutch language	--
Period of warranty	1 year	--

1: Subjects who were not familiar with the features listed, could find the meaning of each feature on a card.

Table 1a: Analysis of variance for beers (testing differences in means of BAV-scores between order conditions) (N=120).

Sources of variation	SS	df	MS	F	p
Assigning numbers					
Between subjects					
Subj w groups	429785.46	118	3642.25		
COND	13.78	1	13.78	0.00	0.95
Within subjects					
BRAND x subj w groups	970183.89	826	1174.56		
BRAND	67831.49	7	9690.21	8.25	0.00
COND x BRAND	9997.00	7	1428.14	1.22	0.29
Drawing lines					
Between subjects					
Subj w groups	178124.90	118	1509.53		
COND	2106.34	1	2106.34	1.40	0.24
Within subjects					
BRAND x subj w groups	406303.24	826	491.89		
BRAND	31148.05	7	4449.72	9.05	0.00
COND x BRAND	1671.21	7	238.74	0.49	0.85

Table 1b: Analysis of variance for computers (testing differences in means of BAV-scores between order conditions) (N=120).

Sources of variation	SS	df	MS	F	p
Assigning numbers					
Between subjects					
Subj w groups	199362.17	118	1689.51		
COND	1995.27	1	1995.27	1.18	0.28
Within subjects					
BRAND x subj w groups	611569.43	826	740.40		
BRAND	67055.42	7	9579.35	12.94	0.00
COND x BRAND	6316.65	7	902.38	1.22	0.29
Drawing lines					
Between subjects					
Subj w groups	111682.48	118	946.46		
COND	2528.50	1	2528.50	2.67	0.11
Within subjects					
BRAND x subj w groups	237884.65	826	288.00		
BRAND	20995.50	7	2999.36	10.41	0.00
COND x BRAND	3860.85	7	551.55	1.91	0.07

Explanation of tables 2a/b and 3a/b

By way of example, the data from tables 2a/b and 3a/b will be illustrated below. In this example, the focus is on the brand of beer used at home, and the brand scores from the magnitude estimation task of assigning numbers. Suppose, that a subject indicated in the questionnaire that he normally drinks Heineken at home[2]. Suppose also that this subject gave two other brands in the magnitude estimation task a higher brand score than Heineken. So, in the subject's magnitude estimation hierarchy, Heineken holds a third position. The position of a brand in an individual hierarchy may vary from one to eight, because the magnitude estimation scores were administered for eight brands. It is also possible that, where magnitude estimation scores do not differ between two or more brands, brands share the same position in a magnitude estimation hierarchy (which results in so-called 'ties'). In table 2a, one can see that for 12 subjects the brand of beer they drink at home, holds the third position in the subjects' magnitude estimation hierarchies. Now, if one assumes that the brand scores from the magnitude estimation task refer to the brand subjects use at home, the frequencies listed in these tables should be higher in the upper part of the table, than in the lower part of the table. On the other hand, if one assumes that the brand scores from the magnitude estimation task are unrelated to the data from the questionnaire, the median of the frequencies reported in the tables, should lie at position 4½. Then, 50 % of the observations fall below position 4½, and 50 % of the observations fall above position 4½. However, in the questionnaire, subjects were allowed to choose two brands[3]. Thus, the median of the frequencies should then lie between position 4½ $\pm$ 1 (i.e. between position 3½ and 5½). For the first through the third position, for the third ½ through the fifth ½ position, and for the sixth through the eighth position, cumulative frequencies are listed in parentheses. On the basis of these data, a sign test was employed for large samples with a correction for continuity (in accordance with Siegel and Castellan, 1988 p.80 ff). In this sign test, a count was undertaken of how many frequencies fall below position 3½ and how many frequencies exceed position 5½. The

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2: Subjects could also choose brands that were *not* used in the magnitude estimation task. These cases are omitted from the analysis; in tables 2a/b and 3a/b, they are referred to as 'other'.

3: Because subjects were allowed to name a maximum of two BNs, the total N is equal to 2 x 120 = 240. Subjects were however not obliged to name the maximum of two BNs. In tables 2a/b and 3a/b, we indicated the number of times subjects mentioned less than two BNs as 'none'.

number of frequencies of positions 3½ through 5½ are omitted from the test, leading to a 'reduced N'[4]. In the sign test, it was tested whether the frequency below position 3½ was larger than the frequency above position 5½ (i.e. one-tailed). If this is the case, then there is a strong correspondence between the brand subjects use in the situation specified, and the magnitude estimation scores. For the brand scores, differences between the upper and the lower part of the table are to be expected. For the blind scores such differences are not expected. The z-scores in the lower part of the table indicate to which degree differences emerge. The values of 'mean rank' refer to mean rank orders, and are arithmetical means of position numbers times frequencies. In chapter 4, these tables are summarized by means of these mean rank orders (i.e. tables 4.8a and 4.8b).

Explanation of table 4

Table 4 is concerned with the convergent validity of the BAV-scores. In the questionnaire subjects could indicate which BN in their view adds the most value to the product. In analyzing these data, it was determined which position this brand held in each subject's magnitude estimation hierarchy. By way of example, the data from table 4 will be illustrated. In this, the focus is on the task of assigning numbers for beers. From table 4, one can derive that 28 subjects choose a BN in the questionnaire that corresponded to the brand that had the highest BAV-score in their individual magnitude estimation hierarchy. When there is no link between this direct question for BAV and the BAV-scores of the magnitude estimation task, the median of the frequencies should be 4½. A sign test was conducted for large samples with a correction for continuity (in accordance with Siegel and Castellan, 1988 p.80 ff). In this sign test, it was tested whether the cumulative frequency of position 1 through 4 is larger than the cumulative frequency of position 5 through 8. The frequency of position 4½ is omitted from the sign test, resulting in a reduced number of cases. This reduced N is found by subtracting the frequency of position 4½ from 120 (i.e. for beers / assigning numbers: 120 - 8 = 112). The z-scores in the lower part of the table indicate to which degree differences emerge. The values of 'mean rank' refer to mean rank orders, and are arithmetical means of position numbers times frequencies. In chapter 4, these tables are summarized by means of these mean rank orders (i.e. table 4.9).

4: The reduced N is found by adding up the cumulative frequency of position 3 and the cumulative frequency of position 8.

Table 2a: Content validity of the brand scores for beers.

	Brand used at home				**Brand bought for party**			
Brand scores	*Assigning numbers*		*Drawing lines*		*Assigning numbers*		*Drawing lines*	
first	30	(030)	37	(037)	30	(030)	41	(041)
first ½	8	(038)	7	(044)	8	(038)	5	(046)
second	25	(063)	39	(083)	23	(061)	32	(078)
second ½	17	(080)	3	(086)	16	(077)	2	(080)
third	12	(092)	18	(104)	14	(091)	19	(099)
third ½	15	(015)	6	(006)	11	(011)	4	(004)
fourth	12	(027)	16	(022)	10	(021)	12	(016)
fourth ½	10	(037)	6	(028)	8	(029)	4	(020)
fifth	8	(045)	12	(040)	9	(038)	12	(032)
fifth ½	9	(054)	5	(045)	6	(044)	4	(036)
sixth	9	(009)	10	(010)	9	(009)	10	(010)
sixth ½	2	(011)	3	(013)	1	(010)	5	(015)
seventh	10	(021)	5	(018)	8	(018)	3	(018)
seventh ½	4	(025)	2	(020)	3	(021)	1	(019)
eighth	4	(029)	6	(026)	2	(023)	4	(023)
median	*54*	*(054)*	*45*	*(045)*	*44*	*(044)*	*36*	*(036)*
other	*45*	*(099)*	*45*	*(090)*	*51*	*(095)*	*51*	*(087)*
none	*20*	*(119)*	*20*	*(110)*	*31*	*(126)*	*31*	*(118)*
reduced N	**121**		**130**		**114**		**122**	
z-score	1.82	***	2.92	***	2.81	***	3.46	***
mean rank	3.45		3.22		3.28		3.10	

***: $p \leq 0.01$ (one-tailed).

Table 2b: Content validity of the blind scores for beers.

Blind scores	**Brand used at home**				**Brand bought for party**			
	Assigning numbers		*Drawing lines*		*Assigning numbers*		*Drawing lines*	
first	16	(016)	19	(019)	20	(020)	21	(021)
first ½	12	(028)	2	(021)	8	(028)	0	(021)
second	16	(044)	19	(040)	14	(042)	18	(039)
second ½	10	(054)	2	(042)	8	(050)	1	(040)
third	11	(065)	22	(064)	15	(065)	23	(063)
third ½	8	(008)	5	(005)	9	(009)	4	(004)
fourth	15	(023)	14	(019)	8	(017)	9	(013)
fourth ½	7	(030)	1	(020)	5	(022)	0	(013)
fifth	13	(043)	21	(041)	16	(038)	22	(035)
fifth ½	8	(051)	3	(044)	6	(044)	1	(036)
sixth	19	(019)	13	(013)	15	(015)	11	(011)
sixth ½	8	(027)	7	(020)	6	(021)	7	(018)
seventh	12	(039)	21	(041)	12	(033)	17	(035)
seventh ½	4	(043)	3	(044)	1	(034)	3	(038)
eighth	16	(059)	23	(067)	15	(049)	21	(059)
median	*51*	*(051)*	*44*	*(044)*	*44*	*(044)*	*36*	*(036)*
other	*45*	*(096)*	*45*	*(089)*	*51*	*(095)*	*51*	*(087)*
none	*20*	*(116)*	*20*	*(109)*	*31*	*(126)*	*31*	*(118)*
reduced N	**124**		**131**		**114**		**122**	
z-score	0.63		-0.17		1.31	*	0.45	
mean rank	4.35		4.61		4.21		4.53	

*: $p \leq 0.10$ (one-tailed).

Table 3a: Content validity of the brand scores for computers.

	Brand used at home				**Experiences other brands**			
Brand scores	*Assigning numbers*		*Drawing lines*		*Assigning numbers*		*Drawing lines*	
first	11	(011)	15	(015)	15	(015)	19	(019)
first ½	7	(018)	1	(016)	8	(023)	3	(022)
second	7	(025)	11	(027)	17	(040)	22	(044)
second ½	3	(028)	2	(029)	2	(042)	1	(045)
third	8	(036)	4	(033)	8	(050)	10	(055)
third ½	4	(004)	3	(003)	2	(002)	3	(003)
fourth	0	(004)	2	(005)	12	(014)	9	(012)
fourth ½	2	(006)	2	(007)	6	(020)	1	(013)
fifth	2	(008)	2	(009)	6	(026)	10	(023)
fifth ½	0	(008)	1	(010)	5	(031)	2	(025)
sixth	2	(002)	2	(002)	10	(010)	9	(009)
sixth ½	0	(002)	0	(002)	3	(013)	3	(012)
seventh	1	(003)	1	(003)	9	(022)	10	(022)
seventh ½	0	(003)	0	(003)	0	(022)	0	(022)
eighth	1	(004)	2	(005)	5	(027)	6	(028)
median	*8*	*(008)*	*10*	*(010)*	*31*	*(031)*	*25*	*(025)*
other	*32*	*(040)*	*32*	*(042)*	*78*	*(109)*	*78*	*(103)*
none	*160*	*(200)*	*160*	*(202)*	*54*	*(163)*	*54*	*(157)*
reduced N	**40**		**38**		**77**		**83**	
z-score	4.91	***	4.38	***	2.51	***	2.85	***
mean rank	2.65		2.78		3.81		3.74	

***: $p \leq 0.01$ (one-tailed).

Table 3b: Content validity of the blind scores for computers.

Blind scores	**Brand used at home** *Assigning numbers*		*Drawing lines*		**Experiences other brands** *Assigning numbers*		*Drawing lines*	
first	6	(006)	6	(006)	9	(009)	16	(016)
first ½	2	(008)	1	(007)	2	(011)	1	(017)
second	7	(015)	8	(015)	12	(023)	15	(032)
second ½	4	(019)	1	(016)	1	(024)	3	(035)
third	9	(028)	9	(025)	11	(035)	7	(042)
third ½	1	(001)	1	(001)	6	(006)	2	(002)
fourth	2	(003)	2	(003)	10	(016)	13	(015)
fourth ½	2	(005)	2	(005)	3	(019)	2	(017)
fifth	3	(008)	2	(007)	8	(027)	10	(027)
fifth ½	1	(009)	1	(008)	3	(030)	6	(033)
sixth	0	(000)	5	(005)	16	(016)	11	(011)
sixth ½	2	(002)	0	(005)	3	(019)	2	(013)
seventh	7	(009)	7	(012)	9	(028)	12	(025)
seventh ½	0	(009)	0	(012)	5	(033)	0	(025)
eighth	2	(011)	3	(015)	10	(043)	8	(033)
median	*9*	*(009)*	*8*	*(008)*	*30*	*(030)*	*33*	*(033)*
other	*32*	*(041)*	*32*	*(040)*	*78*	*(108)*	*78*	*(111)*
none	*160*	*(201)*	*160*	*(200)*	*54*	*(162)*	*54*	*(165)*
reduced N	**39**		**40**		**78**		**75**	
z-score	2.56	***	1.42	*	-0.79		0.92	
mean rank	3.73		4.00		4.62		4.20	

*: $p \leq 0.10$; ***: $p \leq 0.01$ (one-tailed).

Table 4: Convergent validity of the BAV-scores for beers and computers.

BAV-scores	Beers				Computers			
	Assigning numbers		*Drawing lines*		*Assigning numbers*		*Drawing lines*	
first	28	(028)	37	(037)	24	(024)	24	(024)
first ½	7	(035)	0	(037)	7	(031)	1	(025)
second	13	(048)	18	(055)	11	(042)	16	(041)
second ½	4	(052)	1	(056)	5	(047)	5	(046)
third	11	(063)	14	(070)	12	(059)	20	(066)
third ½	8	(071)	4	(074)	9	(068)	5	(071)
fourth	10	(081)	12	(086)	4	(072)	13	(084)
fourth ½	8	(008)	2	(002)	8	(008)	2	(002)
fifth	7	(007)	6	(006)	6	(006)	10	(010)
fifth ½	3	(010)	2	(008)	9	(015)	2	(012)
sixth	9	(019)	10	(018)	8	(023)	9	(021)
sixth ½	0	(019)	2	(020)	4	(027)	0	(021)
seventh	5	(024)	8	(028)	8	(035)	7	(028)
seventh ½	1	(025)	0	(028)	3	(038)	2	(030)
eighth	6	(031)	4	(032)	2	(040)	4	(034)
median	*8*		*2*		*8*		*2*	
reduced N	**112**		**118**		**112**		**118**	
z-score	4.63	***	4.88	***	2.93	***	4.51	***
mean rank	3.40		3.25		3.64		3.50	

***: $p \leq 0.01$ (one-tailed).

APPENDIX 2

ADDITIONAL TABLES CHAPTER 5

Table 1: List of the 72 brands that were used in the empirical study.

Group 1

Milk	*Coffee-makers*	*Lipstick*	*Shoes*
Albert Heijn	Braun	Estée Lauder	Avorio*
Campina*	Ismet	Jade	Bally Suisse
Coberco	Kalorik*	Jil Sander	Cinderella
Melkunie	Krups	Lancôme	Ivanoe
Menken	Petra Electronic	Max Factor*	Kogels
Van Grieken	Severin	Revlon	Privilege

Group 2

Eggs	*Frying-pans*	*Women's magaz.*	*Automobiles*
Albert Heijn	Alliance	Libelle	Daihatsu
Alblas	BK	Margriet	Hyundai
Beb	Fissler	Privé	Lada
Briljant*	Tefal	Story	Mazda
H. de M.	Tomado	Viva*	Renault*
Super huismerk	Urano*	Weekend	Volvo

Group 3

Sweeteners	*Washing machines*	*Cigarettes*	*Watches*
Canderel*	Hollandia	Belinda	Casio
Dinteloord	Marijnen*	Dunhill	Certina
Flix	Miele	Ernte 23	Longines
Hermesetas	Ruton	Marlboro	Prisma
Natrena	Siemens	Roxy Dual*	Roger Rodin
Sukrettine	Zanker	Tivoli	Seiko*

*: These brands were used as reference stimuli in the magnitude estimation tasks.

Table 2a: Rankings of durable consumer goods according to the degree of functional vs expressive cues.

	Product class									
Judge	A	B	C	D	E	F	G	H	I	J
1	9	4	8	6	7	3	10	1	2	5
2	5	6	9	4	8	2	10	1	7	3
3	9	6	10	5	8	4	3	2	7	1
4	6	2	10	1	9	3	7	5	4	8
5	10	6	7	5	8	4	9	2	1	3
6	10	2	9	5	3	4	6	8	1	7
7	7	10	8	3	9	5	6	1	4	2
8	8	4	9	1	10	2	6	5	7	3
9	7	2	10	6	9	1	8	3	5	4
10	10	8	6	7	9	2	4	1	3	5
T_j	81	50	86	43	80	30	69	29	41	41

Legend product classes: (A) automobiles; (B) women's novels; (C) shoes; (D) bikes; (E) watches; (F) coffee-makers; (G) microwave ovens; (H) pans; (I) ball-point pens; (J) washing machines. The scores range from 1 (functional) to 10 (expressive).

Table 2b: Rankings of fast-moving consumer goods according to the degree of functional vs expressive cues.

	Product class									
Judge	A	B	C	D	E	F	G	H	I	J
1	1	8	3	10	4	9	6	7	2	5
2	8	9	1	10	3	7	4	6	2	5
3	6	10	2	8	4	5	3	9	1	7
4	5	4	2	10	3	8	6	9	1	7
5	5	6	3	10	2	8	4	9	1	7
6	7	8	4	10	3	6	2	9	1	5
7	4	9	3	10	2	7	5	8	1	6
8	6	7	2	10	3	9	4	8	1	5
9	7	5	4	9	3	8	2	10	1	6
10	6	9	3	8	2	7	4	10	1	5
T_j	55	75	27	95	29	74	40	85	12	58

Legend product classes: (A) mineral water; (B) women's magazines; (C) eggs; (D) make-up; (E) milk; (F) ladies' hosiery; (G) (creamery) butter; (H) cigarettes; (I) sugar; (J) bars of soap. The scores range from 1 (functional) to 10 (expressive).

Table 3: Demographic characteristics of the three groups of subjects (the data represent frequencies) (for each group, N=48).

	Group 1	Group 2	Group 3
Age group[1]			
24-29	9	8	12
30-39	18	21	20
40-49	13	13	12
50-59	7	6	4
60-65	1	0	0
Civil status[2]			
Unmarried	1	8	9
Married	41	34	32
Divorced	6	6	7
Family size[3]			
One person	7	10	9
Two persons	10	6	14
Three persons	12	11	10
Four persons	18	17	11
Five persons	1	4	4
Income bracket[4]			
< Dfl. 1000	0	0	1
≥ Dfl. 1000 < Dfl. 1750	14	11	16
≥ Dfl. 1750 < Dfl. 2500	9	11	14
≥ Dfl. 2500 < Dfl. 3250	10	12	7
≥ Dfl. 3250 < Dfl. 4000	10	6	6
> Dfl. 4000	5	8	4

1: Chi-square value: 4.01 (df=8) (p=0.85).
2: Chi-square value: 7.69 (df=4) (p=0.11).
3: Chi-square value: 7.79 (df=8) (p=0.46).
4: Chi-square value: 8.34 (df=10) (p=0.60).

Table 3 (continuation)

Educational level[5]			
Primary education	4	5	9
Lower vocational secondary ed. (lbo)	7	7	10
Lower general secondary ed. (mavo)	18	21	11
Upper vocational secondary ed. (mbo)	9	6	7
Upper general secondary ed. (havo)	4	5	2
Professional higher education (hbo)	5	4	7
University preparatory ed. (vwo)	1	0	1
University	0	0	1

Table 4: Results from the paired comparison tasks.

Group 1	**Milk**	**Coffee-makers**	**Lipstick**	**Shoes**
Aggregate data				
- gamma (mean)	0.47	0.87	0.73	0.90
- D_n	11.28**	83.78***	15.94***	35.39***
Individual data				
- $p \leq 0.05$	n= 2	n=13	n= 8	n=15
- $p \leq 0.10$	n= 0	n= 6	n= 3	n= 3
- $p > 0.10$	n=22	n= 5	n=13	n= 6

For each group, N=24 (df=5); **: $p \leq 0.05$; ***: $p \leq 0.01$ (two-tailed).

5: Chi-square value: 12.03 (df=14) (p=0.60).

Table 4 (continuation)

Group 2	Eggs	Frying-pans	Women's magazines	Auto-mobiles
Aggregate data				
- gamma (mean)	0.61	0.93	0.97	0.91
- D_n	20.78***	27.89***	231.06***	103.33***
Individual data				
- $p \leq 0.05$	n= 5	n=17	n=19	n=17
- $p \leq 0.10$	n= 8	n= 4	n= 5	n= 3
- $p > 0.10$	n=11	n= 3	n= 0	n= 4

Group 3	Sweeteners	Washing machines	Cigarettes	Watches
Aggregate data				
- gamma (mean)	0.69	0.89	0.58	0.96
- D_n	17.11***	91.61***	11.28**	65.89***
Individual data				
- $p \leq 0.05$	n= 7	n=12	n= 2	n=19
- $p \leq 0.10$	n= 3	n= 7	n= 3	n= 3
- $p > 0.10$	n=14	n= 5	n=19	n= 2

For each group, N=24 (df=5); **: $p \leq 0.05$; ***: $p \leq 0.01$ (two-tailed).

Table 5: Concurrent validity: mean Pearson correlation coefficients between the task of drawing lines and the dollar metric task (N=48).

Product class	Brand scores	Blind scores	BAV-scores
Automobiles	0.91	0.84	0.85
Cigarettes	0.92	0.94	0.89
Coffee-makers	0.95	0.95	0.86
Eggs	0.93	0.93	0.90
Frying-pans	0.94	0.93	0.85
Lipstick	0.95	0.94	0.89
Milk	0.89	0.92	0.89
Shoes	0.91	0.92	0.78
Sweeteners	0.92	0.92	0.85
Washing machines	0.94	0.94	0.80
Watches	0.91	0.93	0.76
Women's magazines	0.96	0.95	0.76

For all coefficients, df=46 and $p \leq 0.01$ (one-tailed).

Table 6a: Results of a regression analysis with the average MBAV-scores of product classes as the dependent variable (N=12) (included is an interaction between EXPE and ADV).

Variable	B	SE B	ß	t-value	p-value	δR^2
EXPE	2.99	1.86	1.02	1.60	0.08	0.38
EXPR	1.53	0.92	0.53	1.62	0.08	0.08
EXPE x ADV	-0.17	0.33	-0.53	-0.51	0.69	0.12
RELE	-0.05	0.17	-0.12	-0.28	0.40	0.00
ADV	-0.04	0.27	-0.09	-0.13	0.55	0.00
intercept	2.22	2.19		1.01	0.18	
Total R^2						0.58

The p-values reported, are one-tailed.

Table 6b: Results of a regression analysis with individual MBAV-scores as the dependent variable (N=576) (included is an interaction between EXPE and ADV).

Variable	B	SE B	ß	t-value	p-value	δR^2
EXPE	1.09	0.17	0.62	6.58	0.00	0.087
EXPE x ADV	-0.10	0.03	-0.50	-3.78	1.00	0.013
EXPR	0.26	0.08	0.15	3.10	0.00	0.013
ADV	0.04	0.02	0.14	1.82	0.03	0.004
RELE	-0.05	0.04	-0.05	-1.23	0.11	0.002
intercept	-0.60	0.13		-4.57	0.00	
Total R^2						0.119

The p-values reported, are one-tailed.

APPENDIX 3
ADDITIONAL TABLES CHAPTER 6

Table 1: Demographic characteristics of the three groups of subjects (the data represent frequencies) (for each group, N=40).

	Group 1	Group 2	Group 3
Age group[1]			
25-29	5	4	0
30-39	21	16	15
40-49	10	7	22
50-59	3	12	3
60-65	1	1	0
Civil status[2]			
Unmarried	8	10	5
Married	30	25	29
Divorced	2	5	6
Family size[3]			
One person	8	12	2
Two persons	5	9	10
Three persons	11	9	16
Four persons	12	8	12
Five persons	4	2	0
Income bracket[4]			
≥ Dfl. 1000 < Dfl. 1750	10	9	9
≥ Dfl. 1750 < Dfl. 2500	6	9	7
≥ Dfl. 2500 < Dfl. 3250	5	7	13
≥ Dfl. 3250 < Dfl. 4000	10	7	5
> Dfl. 4000	9	8	6

1: Chi-square value: 25.55 (df=8) (p=0.00).
2: Chi-square value: 4.14 (df=4) (p=0.40).
3: Chi-square value: 15.83 (df=8) (p=0.05).
4: Chi-square value: 7.20 (df=8) (p=0.52).

Table 1 (continuation)

Educational level[5]	Group 1	Group 2	Group 3
Primary education	3	2	2
Lower vocational secondary ed. (lbo)	6	9	13
Lower general secondary ed. (mavo)	13	11	15
Upper vocational secondary ed. (mbo)	6	4	4
Upper general secondary ed. (havo)	5	6	4
Professional higher education (hbo)	5	6	1
University preparatory ed. (vwo)	1	0	1
University	1	2	0

5: Chi-square value: 11.02 (df=14) (p=0.60).

Explanation of tables 2, 3a/b and 4a/b

In the ANCOVA, contrasts were specified for the ADV and TIME variables. For the ADV variable, two different types of contrasts were specified, which implied that in all cases two separate ANCOVAS were employed:

1. An ANCOVA in which 'reverse Helmert contrasts' were specified:
   a. The contrast 3 vs 1 + 2, referring to the situations of advertising absent (3) (the control group) and advertising present (1 + 2) (the average effect of informational and transformational advertising).
   b. The contrast 2 vs 1, referring to the difference between transformational (2) and informational (1) advertising.
2. An ANCOVA in which 'simple contrasts' were specified:
   a. The contrast 1 vs 3, referring to the difference between informational advertising (1) and the control group (3).
   b. The contrast 2 vs 3, referring to the difference between transformational advertising (2) and the control group (3).

Because the results of both ANCOVAS only differ on the ADV variable, the results of both analyses are - in all tables - integrated in one table. So, for example, in table 2, the results for the 'between subjects' effects do not differ between both analyses for 'subjects within groups', the covariate, and the constant term. Only the results for the ADV variable differs between both ANCOVAS. The results on the ADV variable for the ANCOVA based on simple contrasts, are printed in italics in these tables. The first reverse Helmert contrast mentioned above focuses on the effect of advertising in general (i.e. advertising vs no advertising), and may be used to test hypothesis 1 (in interaction with the type of product). The second reverse Helmert contrast compares the two different modalities of advertising with each other (i.e. informational vs transformational), and may be used to test hypothesis 2 (again, in interaction with the type of product). The simple contrasts focus on the effect of each modality of advertising vs no advertising. These contrasts may be used to gain additional insight in the effect of both modalities of advertising. For the TIME variable two 'reverse simple contrasts' were specified:

a. The difference between post-test 2 and post-test 1 (i.e. contrast 2 vs 1).
b. The difference between post-test 3 and post-test 1 (i.e. contrast 3 vs 1).

Regarding these reverse simple contrasts for the TIME variable, it is expected that the second contrast yields a more significant result than the first contrast.

Table 2: Results of two ANCOVAS taking the ADV, PROD, and TIME variables into account (N=120).

Sources of variation	SS	df	MS	F	p
Between subjects					
Subjects w groups	10201.84	116	87.95		
Covariate	122.87	1	122.87	1.40	0.12
Constant	175.65	1	175.65	2.00	0.08
ADV (2VS1)	41.04	1	41.04	0.47	0.25
ADV (3VS1+2)	67.10	1	67.10	0.76	0.19
ADV (1VS3)	*105.87*	*1*	*105.87*	*1.20*	*0.14*
ADV (2VS3)	*15.28*	*1*	*15.28*	*0.17*	*0.34*
Within subjects					
PROD x subj w groups	7081.82	116	61.05		
Covariate	63.97	1	63.97	1.05	0.15
PROD	40.46	1	40.46	0.66	0.21
ADV (2VS1) x PROD	15.53	1	15.53	0.25	0.31
ADV (3VS1+2) x PROD	5.09	1	5.09	0.08	0.39
ADV (1VS3) x PROD	*0.00*	*1*	*0.00*	*0.00*	*0.50*
ADV (2VS3) x PROD	*15.29*	*1*	*15.29*	*0.25*	*0.31*
TIME (2VS1) x subj w groups	4605.50	117	39.36		
TIME (2VS1)	1.74	1	1.74	0.04	0.42
ADV (2VS1) x TIME (2VS1)	66.68	1	66.68	1.69	0.10
ADV (3VS1+2) x TIME (2VS1)	1.75	1	1.75	0.04	0.42
ADV (1VS3) x TIME (2VS1)	*8.63*	*1*	*8.63*	*0.22*	*0.32*
ADV (2VS3) x TIME (2VS1)	*27.34*	*1*	*27.34*	*0.69*	*0.20*
TIME (3VS1) x subj w groups	5011.61	117	42.83		
TIME (3VS1)	36.30	1	36.30	0.85	0.18
ADV (2VS1) x TIME (3VS1)	71.25	1	71.25	1.66	0.10
ADV (3VS1+2) x TIME (3VS1)	6.83	1	6.83	0.16	0.35
ADV (1VS3) x TIME (3VS1)	*3.83*	*1*	*3.83*	*0.09*	*0.38*
ADV (2VS3) x TIME (3VS1)	*42.05*	*1*	*42.05*	*0.98*	*0.16*

Table 2 (continuation)

PROD x TIME (2vs1) x					
subj w groups	5843.80	117	49.95		
PROD x TIME (2vs1)	5.38	1	5.38	0.11	0.37
ADV (2vs1) x PROD x					
TIME (2vs1)	11.48	1	11.48	0.23	0.32
ADV (3vs1+2) x PROD x					
TIME (2vs1)	36.68	1	36.68	0.73	0.20
ADV (1vs3) x PROD x					
TIME (2vs1)	*48.15*	*1*	*48.15*	*0.96*	*0.16*
ADV (2vs3) x PROD x					
TIME (2vs1)	*12.60*	*1*	*12.60*	*0.25*	*0.31*
PROD x TIME (3vs1) x					
subj w groups	7988.94	117	68.28		
PROD x TIME (3vs1)	25.21	1	25.21	0.37	0.27
ADV (2vs1) x PROD x					
TIME (3vs1)	187.58	1	187.58	2.75	0.10
ADV (3vs1+2) x PROD x					
TIME (3vs1)	1.28	1	1.28	0.02	0.45
ADV (1vs3) x PROD x					
TIME (3vs1)	*34.45*	*1*	*34.45*	*0.50*	*0.24*
ADV (2vs3) x PROD x					
TIME (3vs1)	*61.25*	*1*	*61.25*	*0.90*	*0.17*

The p-values listed, are one-tailed. The constant term tests whether the average BAV-score is equal to zero. For the covariate term, the sum of squares reflects the variability that can be ascribed to the covariate. For the ADV variable, value 1 refers to condition 1 (informational advertisement), value 2 refers to condition 2 (transformational advertisement), and value 3 refers to the control group (no advertisement). For the TIME variable, value 1 refers to post-test 1, value 2 refers to post-test 2, and value 3 refers to post-test 3.

Table 3a: Results of two ANCOVAS taking the ADV and TIME variables into account for the search product (i.e. Krantz) (N=120).

Sources of variation	SS	df	MS	F	p
Between subjects					
Subjects w groups	7941.80	116	68.46		
Covariate	130.04	1	130.04	1.90	0.09
Constant	216.47	1	216.47	3.16	0.04
ADV (2VS1)	3.95	1	3.95	0.06	0.41
ADV (3VS1+2)	48.15	1	48.15	0.70	0.20
ADV (1VS3)	*49.11*	*1*	*49.11*	*0.72*	*0.20*
ADV (2VS3)	*25.10*	*1*	*25.10*	*0.37*	*0.27*
Within subjects					
TIME (2VS1) x subj w groups	4554.92	117	38.93		
TIME (2VS1)	6.61	1	6.61	0.17	0.34
ADV (2VS1) x TIME (2VS1)	11.41	1	11.41	0.29	0.29
ADV (3VS1+2) x TIME (2VS1)	27.22	1	27.22	0.70	0.20
ADV (1VS3) x TIME (2VS1)	*8.01*	*1*	*8.01*	*0.21*	*0.33*
ADV (2VS3) x TIME (2VS1)	*38.53*	*1*	*38.53*	*0.99*	*0.16*
TIME (3VS1) x subj w groups	5527.96	117	47.25		
TIME (3VS1)	0.50	1	0.50	0.01	0.46
ADV (2VS1) x TIME (3VS1)	245.02	1	245.02	5.19	0.01
ADV (3VS1+2) x TIME (3VS1)	7.01	1	7.01	0.15	0.35
ADV (1VS3) x TIME (3VS1)	*30.62*	*1*	*30.62*	*0.65*	*0.21*
ADV (2VS3) x TIME (3VS1)	*102.40*	*1*	*102.40*	*2.17*	*0.07*

The p-values listed, are one-tailed. The constant term tests whether the average BAV-score is equal to zero. For the covariate term, the sum of squares reflects the variability that can be ascribed to the covariate. For the ADV variable, value 1 refers to condition 1 (informational advertisement), value 2 refers to condition 2 (transformational advertisement), and value 3 refers to the control group (no advertisement). For the TIME variable, value 1 refers to post-test 1, value 2 refers to post-test 2, and value 3 refers to post-test 3.

Table 3b: Results of two ANCOVAS taking the ADV and TIME variables into account for the experience product (i.e. Aisha) (N=120).

Sources of variation	SS	df	MS	F	p
Between subjects					
Subjects w groups	9325.27	116	80.39		
Covariate	73.39	1	73.39	0.91	0.17
Constant	27.70	1	27.70	0.34	0.28
ADV (2VS1)	53.07	1	53.07	0.66	0.21
ADV (3VS1+2)	15.01	1	15.01	0.19	0.33
ADV (1VS3)	*48.86*	*1*	*48.86*	*0.61*	*0.22*
ADV (2VS3)	*0.07*	*1*	*0.07*	*0.00*	*0.49*
Within subjects					
TIME (2VS1) x subj w groups	5894.38	117	50.38		
TIME (2VS1)	0.50	1	0.50	0.01	0.46
ADV (2VS1) x TIME (2VS1)	66.75	1	66.75	1.32	0.13
ADV (3VS1+2) x TIME (2VS1)	11.20	1	11.20	0.22	0.32
ADV (1VS3) x TIME (2VS1)	*48.77*	*1*	*48.77*	*0.97*	*0.16*
ADV (2VS3) x TIME (2VS1)	*1.41*	*1*	*1.41*	*0.03*	*0.43*
TIME (3VS1) x subj w groups	7472.59	117	63.87		
TIME (3VS1)	61.00	1	61.00	0.96	0.17
ADV (2VS1) x TIME (3VS1)	13.81	1	13.81	0.22	0.32
ADV (3VS1+2) x TIME (3VS1)	1.10	1	1.10	0.02	0.45
ADV (1VS3) x TIME (3VS1)	*7.66*	*1*	*7.66*	*0.12*	*0.37*
ADV (2VS3) x TIME (3VS1)	*0.90*	*1*	*0.90*	*0.01*	*0.45*

The p-values listed, are one-tailed. The constant term tests whether the average BAV-score is equal to zero. For the covariate term, the sum of squares reflects the variability that can be ascribed to the covariate. For the ADV variable, value 1 refers to condition 1 (informational advertisement), value 2 refers to condition 2 (transformational advertisement), and value 3 refers to the control group (no advertisement). For the TIME variable, value 1 refers to post-test 1, value 2 refers to post-test 2, and value 3 refers to post-test 3.

Table 4a: Results of two ANCOVAS for the search product (i.e. Krantz), taking only the ADV variable into account (N=120).

Sources of variation	SS	df	MS	F	p
Post-test 1					
Subjects w groups	6418.64	116	55.33		
Covariate	62.86	1	62.86	1.14	0.14
Constant	102.46	1	102.46	1.85	0.09
ADV (2VS1)	118.63	1	118.63	2.14	0.07
ADV (3VS1+2)	17.75	1	17.75	0.32	0.29
ADV (1VS3)	*82.87*	*1*	*82.87*	*1.50*	*0.11*
ADV (2VS3)	*3.24*	*1*	*3.24*	*0.06*	*0.40*
Post-test 2					
Subjects w groups	6781.53	116	58.46		
Covariate	13.37	1	13.37	0.23	0.32
Constant	38.79	1	38.79	0.66	0.21
ADV (2VS1)	14.10	1	14.10	0.24	0.31
ADV (3VS1+2)	0.02	1	0.02	0.00	0.49
ADV (1VS3)	*3.09*	*1*	*3.09*	*0.05*	*0.41*
ADV (2VS3)	*3.99*	*1*	*3.99*	*0.07*	*0.40*
Post-test 3					
Subjects w groups	4811.63	116	41.48		
Covariate	66.69	1	66.69	1.61	0.10
Constant	83.42	1	83.42	2.01	0.08
ADV (2VS1)	125.57	1	125.57	3.03	0.04
ADV (3VS1+2)	63.12	1	63.12	1.52	0.11
ADV (1VS3)	*1.63*	*1*	*1.63*	*0.04*	*0.42*
ADV (2VS3)	*155.61*	*1*	*155.61*	*3.75*	*0.03*

The p-values listed, are one-tailed. The constant term tests whether the average BAV-score is equal to zero. For the covariate term, the sum of squares reflects the variability that can be ascribed to the covariate. For the ADV variable, value 1 refers to condition 1 (informational advertisement), value 2 refers to condition 2 (transformational advertisement), and value 3 refers to the control group (no advertisement).

Table 4b: Results of TWO ANCOVAS for the experience product (i.e. Aisha), taking only the ADV variable into account (N=120).

Sources of variation	SS	df	MS	F	p
Post-test 1					
Subjects w groups	8908.61	116	76.80		
Covariate	78.37	1	78.37	1.02	0.16
Constant	56.11	1	56.11	0.73	0.20
ADV (2VS1)	3.31	1	3.31	0.04	0.42
ADV (3VS1+2)	0.37	1	0.37	0.00	0.47
ADV (1VS3)	*0.14*	*1*	*0.14*	*0.00*	*0.48*
ADV (2VS3)	*2.05*	*1*	*2.05*	*0.03*	*0.44*
Post-test 2					
Subjects w groups	7685.21	116	66.25		
Covariate	2.64	1	2.64	0.04	0.42
Constant	22.86	1	22.86	0.35	0.28
ADV (2VS1)	120.59	1	120.59	1.82	0.09
ADV (3VS1+2)	17.33	1	17.33	0.26	0.31
ADV (1VS3)	*82.47*	*1*	*82.47*	*1.24*	*0.13*
ADV (2VS3)	*3.42*	*1*	*3.42*	*0.05*	*0.41*
Post-test 3					
Subjects w groups	6032.88	116	52.01		
Covariate	57.92	1	57.92	1.11	0.15
Constant	9.96	1	9.96	0.19	0.33
ADV (2VS1)	11.94	1	11.94	0.23	0.32
ADV (3VS1+2)	3.75	1	3.75	0.07	0.39
ADV (1VS3)	*11.57*	*1*	*11.57*	*0.22*	*0.32*
ADV (2VS3)	*0.00*	*1*	*0.00*	*0.00*	*0.50*

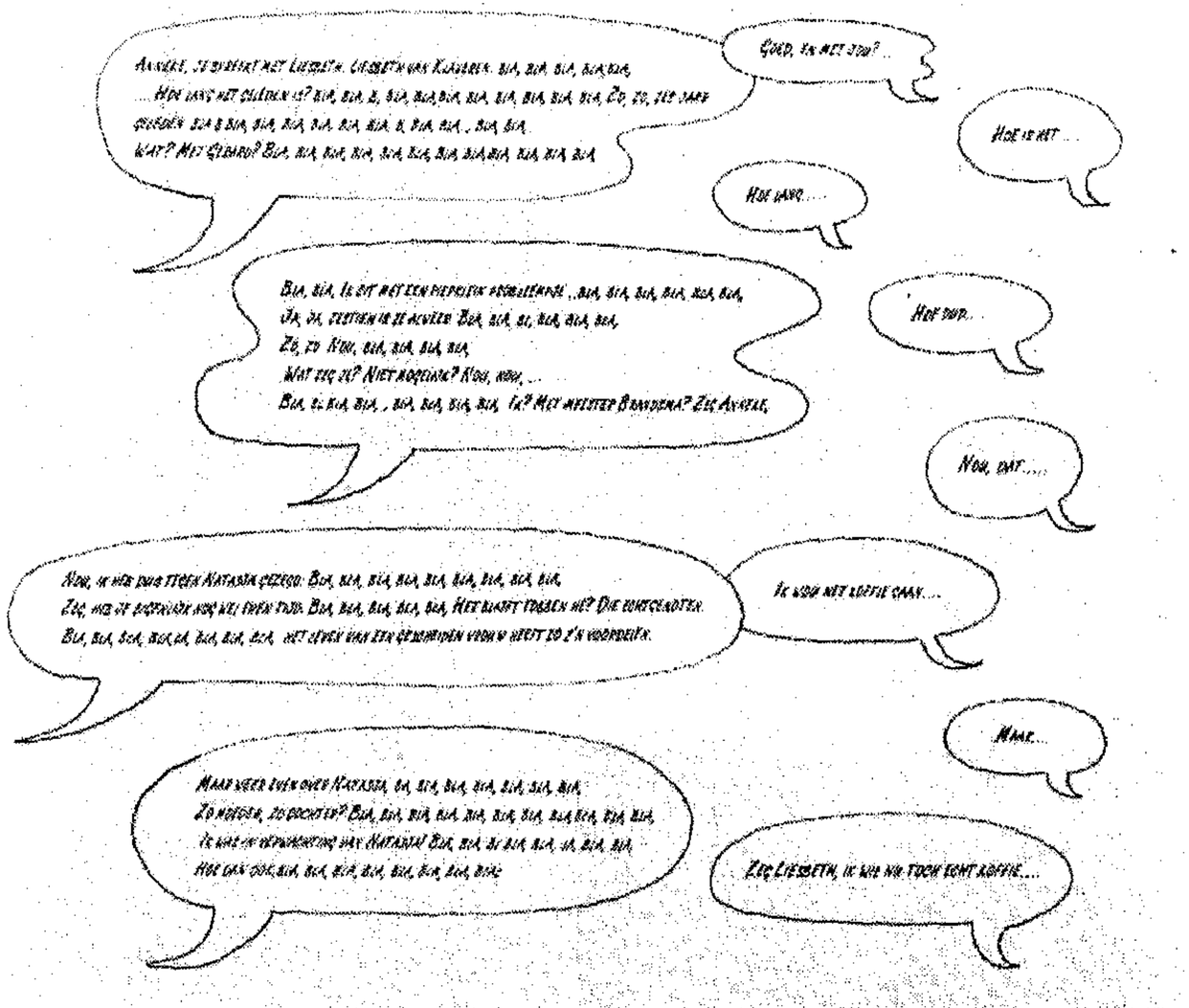
The p-values listed, are one-tailed. The constant term tests whether the average BAV-score is equal to zero. For the covariate term, the sum of squares reflects the variability that can be ascribed to the covariate. For the ADV variable, value 1 refers to condition 1 (informational advertisement), value 2 refers to condition 2 (transformational advertisement), and value 3 refers to the control group (no advertisement).

Explanation of the enclosed advertisements

The advertisements used in the experiment are shown at the end of this appendix. The first and the second advertisement are for the search product, the Krantz Thermocafé coffee-maker. The third and the fourth advertisement are for the experience product, Aisha lipstick. In both pairs of advertisements, the first one is the informational advertisement whereas the second one is the transformational advertisement. Below, a brief explanation of the Dutch copy is given.

The informational advertisement for Krantz Thermocafé shows thought bubbles with nonsense texts. The headline of this advertisement communicates that the cup of coffee maintains its original flavour. This advertisement informs the reader of the fact that this brand of coffee-maker has a thermos jug to keep the coffee at the right temperature for a longer period of time. The USP focuses on the thick glass of the thermos jug and on the fact that the thermos jug is automatically pre-heated. Furthermore, information is given on the drip-stop, the compact size and the removable water reservoir. The pay-off runs: 'Krantz Thermocafé, the way of making coffee'. The transformational advertisement for Krantz Thermocafé shows silhouettes of different parts of the coffee-maker. The order of the silhouettes reflect the process of coffee making. The headline of this advertisement communicates that Krantz Thermocafé is a way of making coffee. The copy further communicates that this particular coffee-maker has a thermos jug.

The informational advertisement for Aisha lipstick shows the lipstick upside down. The headline of this advertisement communicates that Aisha has to be applied only twice a day. The copy communicates that cracked lips are prevented due to specific natural fats and a camomile extract to be found in the product. As a consequence, the lipstick will not run into the lip lines above the lip lane and is kiss-proof. The pay-off runs: 'Aisha lipstick, for maximum personal care and protection'. The transformational advertisement for Aisha lipstick shows a blooming rose in a desert. The headline of this advertisement emphasizes how long one can stay beautiful without personal care. The pay-off runs: 'Aisha lipstick, for maximum personal care and protection'.



HET BLIJFT EEN VERS KOPJE KOFFIE

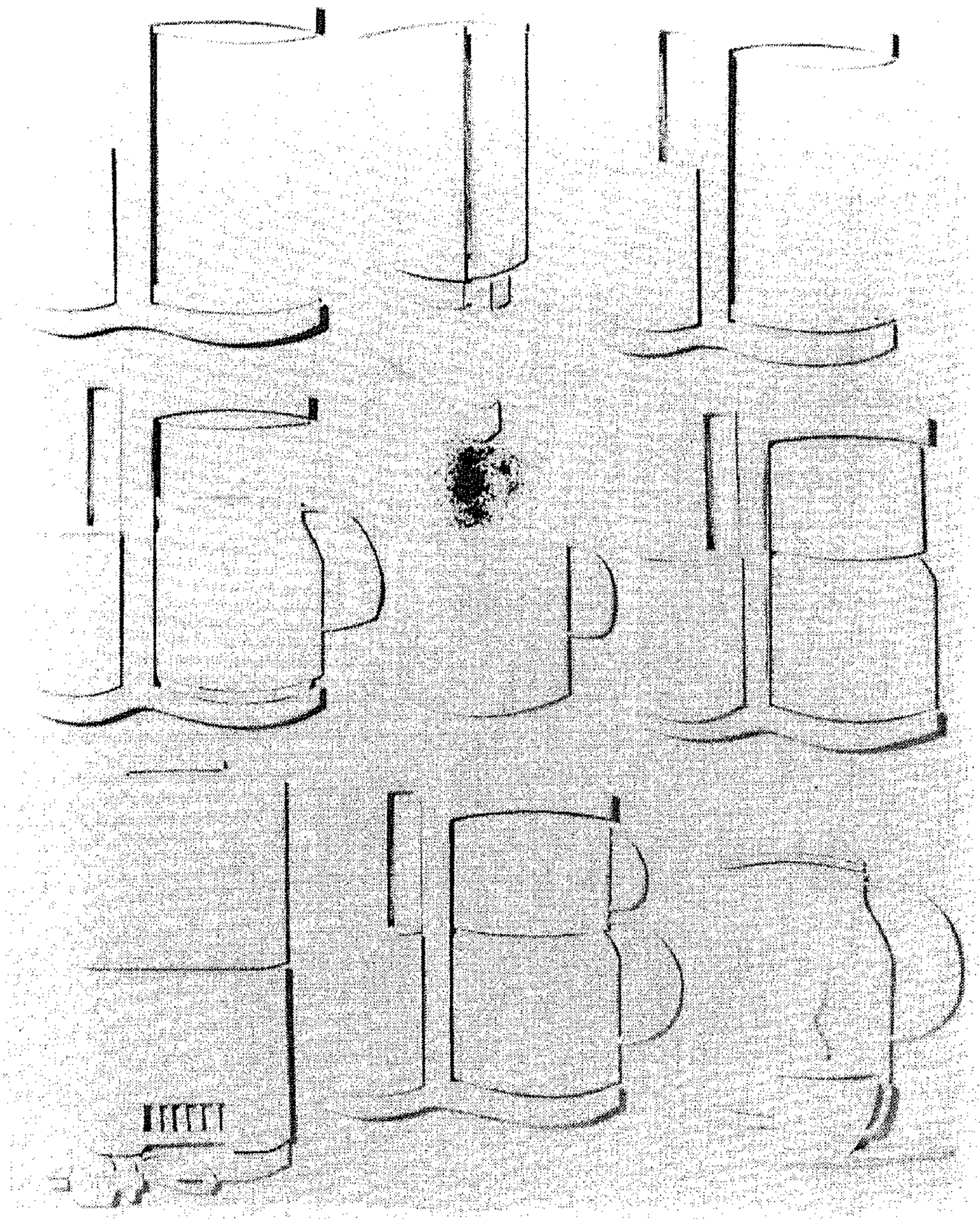
De Krantz Thermocafé vangt uw koffie direct in een thermoskan op, zodat uw koffie langer op temperatuur blijft zonder smaak en aroma te verliezen.

Omdat het alleen uw koffie, maar ook het apparaat langer meemaakt heeft Krantz het volgende bedacht.

De thermoskan is van dikker glas gemaakt en wordt door middel van stoom automatisch voorverwarmd. Als uw koffie is doorgedruppeld staat het apparaat automatisch af. Mocht u echter toch eens gestoord zijn, dan kunt u gebruik maken van de druppelstop. Door de afwezigheid van een warmhoudplaatje, kan er geen koffie aankoeken. De Krantz Thermocafé is dan ook gemakkelijker schoon te houden.

De Krantz Thermocafé neemt weinig ruimte in, door de compacte bouw en de onderopvulling achter in het apparaat. Het waterreservoir is afneembaar en heeft een kopjes-indicatie. Met de Krantz Thermocafé kunt u 2 tot 10 koppen koffiezetten en ervan genieten wanneer het u uitkomt.

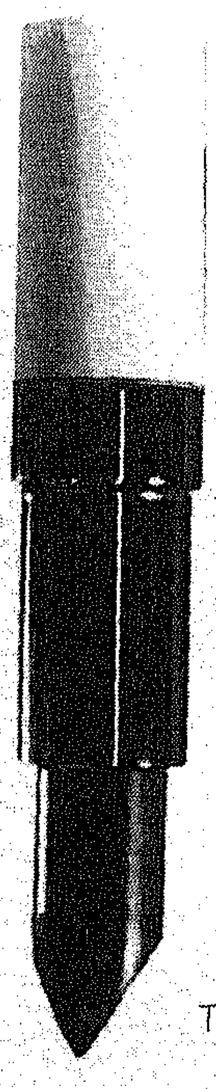
Krantz Thermocafé, een manier van koffiezetten.



Krantz Thermocafé. Een manier van koffiezetten

Door de koffie direct in een thermoskan te zetten, blijft de koffie langer op temperatuur zonder aroma en smaak te verliezen.

AISHA



Twee maal daags opbrengen

Met Aisha lipstick verzorgt u uw lippen optimaal. Door het gebruik van de unieke combinatie van natuurlijke vetten en azuren voorkomt u kloofjes in uw lippen, waardoor de kans op uitlopen minimaal is.

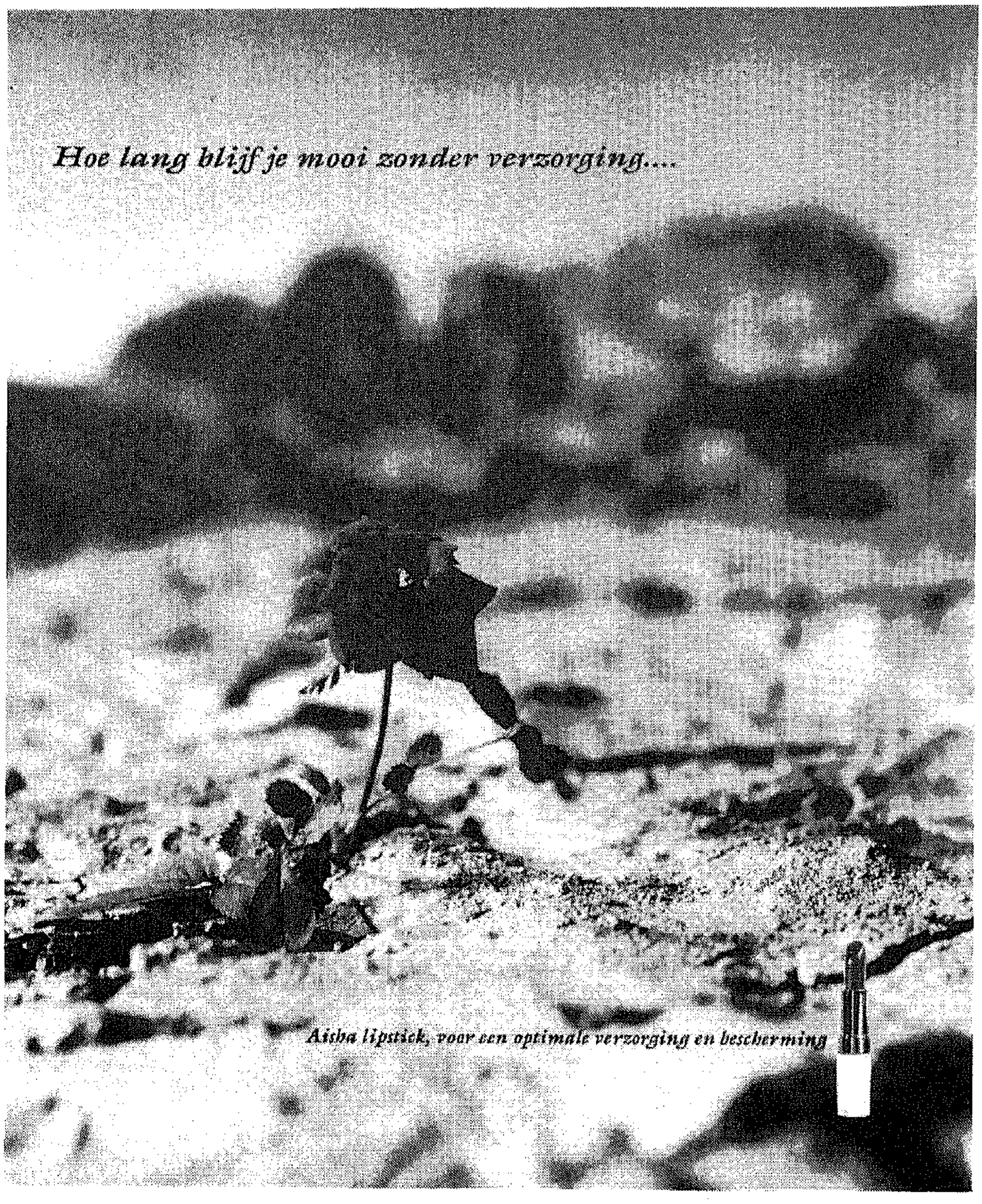
Samenstelling:
Aisha lipstick is samengesteld uit de natuurlijke vetsoorten Carnauba en Candelilla. Hierdoor blijft het vetgehalte van de lipstick altijd. Daarnaast bevat Aisha lipstick azuren, een kamille-extract, waardoor kloofjes in uw lippen worden voorkomen. Aisha lipstick is hypo allergeen.

Eigenschappen:
Aisha lipstick is niet vet, waardoor de stift minder snel breekt. Door de unieke combinatie van gebruikte vetsoorten is Aisha gemakkelijk aan te brengen en zorgt voor *een goed* verzorgend. Omdat Aisha lipstick kloofjes voorkomt is de kans op uitlopen minimaal.

Dosering:
Aisha lipstick blijft langer goed zitten. Dosering is dan ook vaak niet nodig.

Let op:
Aisha lipstick is verkrijgbaar in 15 kleuren bij *gespecialiseerde parfumerieën.*

Aisha lipstick, voor een optimale verzorging en bescherming.


Hoe lang blijf je mooi zonder verzorging....
Aisha lipstick, voor een optimale verzorging en bescherming

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AUTHOR INDEX

BRAND AND CORPORATE NAME INDEX[1]

1: Please note: most of the brand and corporate names mentioned in this thesis are registered or claimed as trade marks.

SUBJECT INDEX

SAMENVATTING (summary in Dutch)

In dit proefschrift staat het construct 'merkmeerwaarde' centraal (ofwel 'brand-added value' dat is afgekort tot 'BAV'). In het begin van het proefschrift wordt BAV vergeleken met twee andere veel gebruikte constructen, namelijk 'added value' en 'brand equity'. Het begrip 'added value' is een term die door praktijkbeoefenaren in de reclame regelmatig gebruikt wordt en verwijst gewoonlijk naar de psychologische waarde die een merk aan een produkt kan toevoegen. Het BAV-construct verwijst behalve naar deze psychologische waarden ook naar de functionele waarden die een merk aan een produkt kan toevoegen. Als voorbeeld wordt het merk Coca-Cola gegeven: functionele waarden kunnen hier verwijzen naar het feit dat Coca-Cola een goed smakende dorstlesser is, terwijl de psychologische waarden kunnen refereren aan aspecten als 'fun' en 'pleasure' die door reclames voor dit merk worden uitgedragen. Het begrip 'brand equity' verwijst naar de waarde die een merk kan hebben voor een consument en naar de waarde die een merk kan hebben voor de producent. BAV kan worden opgevat als een synoniem van 'brand equity' als men 'brand equity' opvat als een waarde van het merk voor de consument. Het proefschrift bestaat uit drie delen: (1) een theoretisch raamwerk, (2) een verslaglegging van twee empirische studies en één experiment en (3) conclusies en implicaties.

In het kader van het theoretisch raamwerk wordt in hoofdstuk 1 een bedrijfskundige invalshoek van het BAV-construct gegeven. Hier wordt het voeren van een merkenstrategie door een onderneming geïntroduceerd vanuit een concurrentieel perspectief. Voorts worden de kenmerken van een merkenstrategie uiteengezet. Een belangrijk aspect van een merkenstrategie is het differentiëren van het eigen merk ten opzichte van concurrerende merken. Een merk kan gedifferentieerd worden op grond van intrinsieke en / of extrinsieke 'cues'. Naast differentiatie van het merk wordt de communicatie van deze differentiatie van essentieel belang geacht in een merkenstrategie. In de tweede paragraaf van hoofdstuk 1 worden een aantal strategische en financiële voordelen van een merkenstrategie uiteengezet. De strategische voordelen van een merkenstrategie kunnen gelegen zijn in het feit dat een producent een situatie creëert van een monopolistische concurrentie en dat een merkenstrategie een 'pull effect' kan bewerkstelligen waardoor retailers min of meer gedwongen worden het merk in hun assorti-

ment op te nemen. De financiële voordelen van een merkenstrategie kunnen gelegen zijn in het feit dat de consumentenvraag naar een merk redelijk stabiel is in de tijd, wat een min of meer stabiele verkoop en winst garandeert. Op grond van deze gedachte kan men stellen dat merken een financiële waarde kunnen hebben in het economische verkeer (in paragraaf 1.2 worden een viertal punten uitgewerkt die deze propositie ondersteunen). In paragraaf 1.3 wordt geïllustreerd dat reclame informatie kan geven over de intrinsieke cues van het merk door rationele informatie te benadrukken en dat reclame informatie kan geven over de extrinsieke cues van het merk door met name emotionele informatie te beklemtonen.

In hoofdstuk 2 wordt het BAV-construct uiteengezet aan de hand van het Lens model van Brunswik. In dit model wordt BAV gepositioneerd als een gepercipieerde waarde van de consument voor de merknaam (een extrinsieke cue). Vervolgens wordt aangetoond dat de waarneembaarheid van de intrinsieke cues van een merk invloed kunnen hebben op de mate waarin BAV optreedt. Als de intrinsieke cues van een produkt waarneembaar zijn, kan de consument het merk voor aankoop op deze cues beoordelen; volgens de terminologie van Nelson zijn dit produkten met overwegend 'search' cues. Als de intrinsieke cues van een produkt *niet* waarneembaar zijn, kan de consument het merk voor aankoop niet voldoende beoordelen; in termen van Nelson zijn dit produkten met overwegend 'experience' cues. De consument kan in dit laatste geval het merk voor aankoop alleen beoordelen op grond van extrinsieke cues, zoals de merknaam en de prijs. Op grond van deze redenering ligt het in de lijn der verwachting dat de invloed van een merknaam groter is voor produkten met overwegend experience cues dan voor produkten met overwegend search cues. In paragraaf 2.2 is BAV als volgt gedefinieerd: 'de merkmeerwaarde van een merkartikel is de bijdrage van een merknaam en de daaraan gerelateerde connotaties aan de waardering van de consument voor het (gehele) merkartikel'. In paragraaf 2.3 wordt BAV vergeleken met een aantal constructen die overeenkomsten vertonen met het BAV-construct, namelijk gepercipieerde kwaliteit van het merk, attitude ten aanzien van het merk, merkimago, merktrouw, en brand equity. Per construct zijn de overeenkomsten en verschillen met het BAV-construct uiteengezet.

In hoofdstuk 3 worden de factoren die aan BAV kunnen bijdragen uiteengezet. Allereerst zijn dat factoren die kenmerkend zijn voor een produktklasse

(alle merken binnen een produktklasse verschillen niet op grond van deze factoren). Deze produktklasse gebonden factoren zijn op te delen in factoren die de potentie voor BAV bepalen en factoren die verwijzen naar de actualisatie van BAV. Factoren die de *potentie* voor BAV bepalen zijn:

1. Search vs. experience cues: de mate waarin BAV optreedt wordt geacht groter te zijn voor produkten met overwegend experience cues dan voor produkten met overwegend search cues.
2. Functionele vs. expressieve cues: de mate waarin BAV optreedt wordt geacht groter te zijn voor produkten met overwegend expressieve cues dan voor produkten met overwegend functionele cues.
3. Consumentenbetrokkenheid ten aanzien van de produktklasse: de mate waarin BAV optreedt wordt geacht groter te zijn voor produkten die een lage consumentenbetrokkenheid oproepen dan voor produkten die een hoge consumentenbetrokkenheid oproepen.
4. Duurzame vs. niet-duurzame goederen: de mate waarin BAV optreedt wordt geacht groter te zijn voor niet-duurzame dan voor duurzame goederen.
5. Materiële differentieerbaarheid van produkten: de mate waarin BAV optreedt wordt geacht groter te zijn naarmate materiële differentiatie gemakkelijker is uit te voeren.

Factoren die de *actualisatie* van BAV bepalen zijn de concentratie van aanbod en de levendigheid van concurrentie in een markt. De mate waarin BAV optreedt wordt geacht groter te zijn bij een lage concentratie van aanbod en / of een hoge levendigheid van concurrentie in de markt.

Binnen een produktklasse kunnen intrinsieke en extrinsieke cues van invloed zijn op BAV. Deze cues kunnen bijdragen aan drie aspecten van BAV: waargenomen kwaliteit, immateriële merk-associaties en merknaamsbekendheid. Intrinsieke cues kunnen alleen invloed uitoefenen op BAV door middel van de waargenomen kwaliteit van het merk. De directe invloed van deze cues op BAV is echter gering; verondersteld wordt dat er in ieder geval aan een drempelwaarde voldaan moet worden om een positieve BAV mogelijk te maken. Intrinsieke cues kunnen indirect aan BAV bijdragen door informatie over deze cues te verstrekken door middel van verpakking of reclame. Intrinsieke cues kunnen ook in interactie met extrinsieke cues bijdragen aan BAV.

Extrinsieke cues kunnen invloed uitoefenen op BAV door middel van de waargenomen kwaliteit van het merk, de immateriële merk-associaties en / of de merknaamsbekendheid. De merknaam is een extrinsieke cue die door de semantische betekenis van de naam opgeroepen associaties, inhoud kan geven aan BAV, maar ook aan BAV kan bijdragen door middel van merknaamsbekendheid. De produkt-gerelateerde cues zoals verpakking, label informatie en garantietermijn, kunnen bijdragen aan zowel de waargenomen kwaliteit van het merk als de immateriële merk-associaties. Voor wat betreft prijs en distributie gerelateerde cues kan hetzelfde geconcludeerd worden. Reclame kan invloed uitoefenen op BAV door te trachten de waargenomen kwaliteit van het merk te verhogen (bijvoorbeeld door exclusieve verkoopargumenten te communiceren), door immateriële merk-associaties te benadrukken (bijvoorbeeld door een bepaalde 'life style' te communiceren) en / of door te trachten de merknaamsbekendheid te vergroten. Wil reclame waarde toevoegen aan een produkt dan dient reclame informatie te verschaffen over cues die de consument voor aankoop niet kan waarnemen. Dit houdt in dat voor een produkt met overwegend search cues, reclame alleen waarde kan toevoegen door informatie te verstrekken over extrinsieke cues. Reclame die met name informatie verstrekt over extrinsieke cues door emotionele informatie te benadrukken, wordt in dit proefschrift aangeduid als transformationele reclame. Reclame die daarentegen met name informatie verstrekt over intrinsieke cues door rationele informatie te benadrukken, wordt in dit proefschrift aangeduid als informationele reclame. Concluderend kan gesteld worden dat alleen transformationele reclame kan bijdragen aan de BAV van een produkt met overwegend search cues (informationele reclame wordt geacht dit niet te kunnen). Voor een produkt met overwegend experience cues (intrinsieke cues zijn niet waarneembaar), kan zowel informationele reclame als transformationele reclame bijdragen aan BAV. Hier wordt de additionele assumptie gesteld dat consumenten in eerste instantie een merk kopen om de intrinsieke cues. Op grond van deze assumptie wordt verwacht dat informationele reclame meer zal bijdragen aan BAV dan transformationele reclame voor een produkt met overwegend experience cues. Tenslotte wordt in hoofdstuk 3 de bijdrage van 'line' en 'brand extensions' aan BAV bediscussieerd. Niet alleen kan het oorspronkelijke merk bijdragen aan de BAV van de nieuwe produkt / merk-combinatie; de nieuwe produkt / merk-combinatie kan ook bijdragen aan de BAV van de oorspronkelijke produkt / merk-combinatie.

In hoofdstuk 4 wordt een methode beschreven waarmee BAV kwantitatief vastgesteld kan worden. De operationele definitie voor BAV luidt als volgt: 'de BAV voor een merkartikel is het verschil in de preferentie van een consument tussen het merk met merknaam en het merk zonder merknaam'. Concreet houdt dit in dat een aantal proefpersonen een set merken beoordeelt met merknaam en dezelfde set merken zonder merknaam. Het verschil in beoordeling met merknaam (de zogenaamde BRAND score) en zonder merknaam (de zogenaamde BLIND score) is de BAV-score van het desbetreffende merk. De BRAND en de BLIND scores worden voor een groep respondenten vastgesteld met behulp van een 'magnitude estimation' techniek (een techniek van verhouding schatten) in een laboratoriumsituatie. Ter bepaling van de betrouwbaarheid en validiteit van dit meetinstrument is een empirische studie uitgevoerd. In deze studie beoordeelden 120 studenten acht merken bier en acht merken computers met en zonder merknaam. Consistentie en stabiliteit (beide aspecten van betrouwbaarheid) zijn getoetst door middel van resp. een taak met paarsgewijze waarnemingen en door een test - retest procedure toe te passen. De consistentie en stabiliteit bleken voldoende te zijn voor de BRAND scores voor bier en de BRAND en de BLIND scores voor computers. De consistentie en stabiliteit van de BLIND scores voor bier bleken echter onvoldoende; proefpersonen hadden met andere woorden moeite om een onderscheid te maken tussen verschillende biersoorten zonder merknaam. Eén van de conclusies van hoofdstuk 4 is dat een test met paarsgewijze waarnemingen uitsluitsel kan geven over de betrouwbaarheid van BLIND scores. Indien BLIND scores betrouwbaar zijn, dan kan BAV bepaald worden door het verschil tussen de BRAND en de BLIND scores te berekenen. Indien BLIND scores echter niet betrouwbaar zijn, dan dient BAV gelijkgesteld te worden aan de BRAND score minus een referentiewaarde gebruikt in de 'magnitude estimation' taak. Voor wat betreft de BRAND scores indiceren toetsen met betrekking tot de convergente, de inhouds- en de concurrente validiteit, dat deze scores weergeven wat ze geacht worden te meten. Voor wat betreft de BAV-scores wordt geconcludeerd dat de convergente, de concurrente en de 'face' validiteit van deze scores voldoende zijn.

In hoofdstuk 5 wordt verslag gedaan van een empirische studie die zich concentreert op verschillen in de mate waarin BAV optreedt tussen produktklassen. De mate waarin BAV optreedt in een produktklasse wordt aangeduid met de 'magnitude of BAV' (afgekort tot 'MBAV'). MBAV is geoperationaliseerd door de absolute waarden van BAV-scores op te tellen

voor een set representatieve merken in een produktklasse. Voor het bepalen van verschillen in MBAV tussen produktklassen zijn twaalf produktklassen geselecteerd voor de empirische studie. Binnen elke produktklasse zijn zes merken geselecteerd waarvoor bij 3 x 48 vrouwen de BAV-scores zijn bepaald. Aan de hand van regressie-analyses is bepaald welke factoren de meeste invloed uitoefenen op MBAV. De onafhankelijke variabelen in dit onderzoek waren: search vs. experience cues, functionele vs. expressieve cues, duurzame vs. niet-duurzame goederen, de mate van consumentenbetrokkenheid en de totale uitgaven aan reclame in een markt (deze laatste dienen als indicatie voor de levendigheid van de concurrentie in een markt). De resultaten tonen aan dat de factoren search vs. experience cues en duurzame vs. niet-duurzame goederen de meeste invloed uitoefenen op de afhankelijke MBAV. De multicollineariteit tussen beide factoren is echter hoog; de significantie en de verklaarde variantie van de factor search vs. experience cues is echter iets gunstiger dan die van de factor duurzame vs. niet-duurzame goederen. In hoofdstuk 5 wordt geconcludeerd dat, mede op conceptuele gronden, de grootste invloed op MBAV toe te schrijven is aan de factor search vs. experience cues, waarbij MBAV hoger is voor produkten met overwegend experience cues dan voor produkten met overwegend search cues. De factor die vervolgens de meeste invloed uitoefent op MBAV is de factor functionele vs. expressieve cues: MBAV is hoger voor produkten met overwegend expressieve cues dan voor produkten met overwegend functionele cues. De invloed van consumentenbetrokkenheid op MBAV is statistisch gezien niet significant. Voor wat betreft de reclame-uitgaven voor een produktklasse als geheel, blijkt dat in het algemeen hogere reclame-uitgaven overeenkomen met hogere MBAV-scores; echter, voor produkten met overwegend experience cues blijken deze uitgaven negatief te correleren met MBAV. Dit laatste is mogelijk toe te schrijven aan het feit dat in een markt van produkten met overwegend experience cues, lage reclame-uitgaven al kunnen resulteren in een hoge MBAV, en aan het feit dat dit effect snel afneemt naarmate de reclame-uitgaven stijgen.

In hoofdstuk 6 wordt verslag gedaan van een experiment waarin getracht werd BAV te beïnvloeden voor twee fictieve merken door middel van reclame. In het experiment zijn proefpersonen blootgesteld òf aan informationele reclame, òf aan transformationele reclame, òf aan geen van beide van deze modaliteiten van reclame voor de twee fictieve merken. Het ene fictieve merk was een koffiezetapparaat dat getypeerd kan worden als een produkt

met overwegend search cues. Het andere fictieve merk was een lippenstift dat getypeerd kan worden als een produkt met overwegend experience cues. De resultaten tonen aan dat voor het search produkt transformationele reclame meer bijdraagt aan BAV dan informationele reclame (alhoewel hier een zekere tijd voor benodigd is). Voor het experience produkt is er een trend waarneembaar dat informationele reclame meer bijdraagt aan BAV dan transformationele reclame. Verder onderzoek is gewenst om dit resultaat te corroboreren.

In de conclusie van dit proefschrift wordt uiteengezet dat vanuit het perspectief van een merkenstrategie, het BAV-construct te prefereren is boven constructen als 'waargenomen kwaliteit' en 'attitude ten aanzien van het merk'. Voor wat betreft het meetinstrument voor BAV wordt geconcludeerd dat dit instrument diverse voordelen heeft boven andere vergelijkbare instrumenten. Bij de bespreking van de bedrijfskundige implicaties, is één van de conclusies dat het longitudinaal vaststellen van BAV-scores van elkaar beconcurrerende merken een nuttige informatiebron voor het management kan zijn. Een andere bedrijfskundige implicatie is, dat het succes van een merkenstrategie in eerste instantie afhankelijk is van de mate van experience cues. Daarnaast kunnen niet-fuctionele (ofwel expressieve) cues het succes van een merkenstrategie faciliteren. Aan het eind van hoofdstuk 7 zijn de belangrijkste vragen met betrekking tot toekomstig onderzoek op het gebied van BAV gegeven.

CURRICULUM VITAE

Rik Riezebos was born on 4 July, 1960 at Sorong (Irian-Jaya). In 1978 he finished his upper general secondary education at Emmeloord. In 1981 he followed a professional higher education course in personnel management. In 1983 he started to read psychology, in which he graduated in 1987 in the field of Economic Psychology at the University of Tilburg. Directly after his study he became a Ph.D. student and followed the doctorate program in General management at the Rotterdam School of Management of the Erasmus University. Since 1991 he has been an assistant professor in marketing at the Rotterdam School of Management and teaches the course 'Advertising Management'. His research interests are in the field of branding and advertising.