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Using Country Stereotypes to Build Brand Personalities: A Priming Perspective

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This dissertation is dedicated to my daughter, LEA

ABSTRACT

This PhD focuses on how country stereotypes can be used to develop brand personality in export markets. The purpose has been to investigate how primed country stereotypes can influence the perception of a brand's personality characteristics. While country stereotypes refer to simplified perceptions about a country, its people and its products, priming refers to pre-exposure of a country stereotype, which can later affect brand evaluations because it becomes activated in memory.

It was hypothesized that a primed country stereotype could affect the beliefs about a target brand in one out of two possible ways: (1) the country stereotype perceptions could be carried-over (assimilated) to the target brand, impacting its brand personality, or (2) the country stereotype primer could be used as a comparison anchor against which the target brand would be compared and possibly contrasted. If contrast occurs, the country stereotype would fail to impact the brand personality or even "rip off" existing brand personality beliefs. Assimilation was believed to be function of the level of congruity between the primed country stereotype and the target brand, and contrast was not only believed to be a function of both the level of congruity but also how relevant it was to compare the primer with the target brand.

The empirical foundation is based on responses from a total of 789 students that participated in the pilot study and in two experiments conducted to test the proposed hypotheses. In the pilot study (N = 363 students) the focus was to develop stimuli, which could be used to manipulate the experimental variables. Moreover in Experiment 1 (N = 158 students), tests of hypotheses were conduced which predicted when assimilation and contrast effects would occur as predicted by the standard-of-comparison model (e.g., Stapel et al 1996; 1997). The moderating effect of primer extremity was also investigated. In Experiment 2 (N = 208 students), the focus was to replicate the findings from Experiment 1 with control groups included as reference points. The moderating effect of product category knowledge was also assessed.

The empirical results provide new insights on how to develop and reinforce a brand's personality. In Experiment 1, assimilation resulted when subjects were primed with a country stereotype evoked by a famous national person before evaluating a congruent target brand. However, contrast resulted when subjects were primed with a country stereotype evoked by a famous national product. Neither assimilation nor contrast resulted for an incongruent target brand. These findings were replicated in Experiment 2, which as opposed to Experiment 1 showed assimilation for an incongruent target brand caused by heuristic processing. This PhD contributes both theoretically and empirically to several streams of research such as brand building, advertising, country-of-origin and priming. The use of priming in a marketing context to build brand personality particularly contributes to new insight.

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CHAPTER 1

INTRODUCTION

1.1. Background

This doctoral thesis investigates the extent to which country stereotypes can be a source to develop brand personalities of brands launched internationally. Although research on this topic is limited, practical evidence is commonly seen in today's international markets. Many of the world's strongest brands capitalize on simplified country perceptions to give the brand a nationality that facilitates the development of some favored brand personality associations. The brand personality of global brands is increasingly becoming their competitive edge. It is therefore crucial to understand the processes underlying the development of such brand personalities.

One technique, which is frequently applied to personalize global brands, is to use famous people from a country as "spokespersons" of the brand, which imbue the brand with personality traits associated with the endorsers. One example of this branding strategy is the Nike brand. This is a global brand in the sense that its component parts are manufactured and assembled in different countries. Yet, to maintain a strong brand nationality, the positioning of Nike strongly emphasizes its US origin. Nike has very successfully associated the emotions of competition, determination, achievement, fun, and winning with its brand. At the core of the Nike brand is the American value of "being a winner", the character behind the brand is the "victory goddess Nike" and the "nationality" of the brand is the USA. These brand associations have been gradually developed through systematic use of successful American athletes – like John MacEnroe and Michael Jordan – as brand endorsers (Aaker and Joachimsthaler 2000, p. 169-183; de Chernatony 2001). Another example of a global brand using country stereotypes in its brand building is the Marlboro brand. For this brand, marketers have developed a brand character based on simplified country perceptions of the archetype US cowboy being the rugged Marlboro Man. He is smoking Marlboro cigarettes and is wearing a Marlboro outfit, which is suitable for the rough "US Wild West" (Aaker and Joachimsthaler 2000, p. 67). To support this brand personality all Marlboro products are profiled as masculine and rugged. The fact that the Marlboro brand was recently ranked as the strongest brand worldwide (Kampanje 2000) shows the success of this strategy.

Although the concept of brand personality has been on the agenda for years, it is just recently that it has been outlined precisely. Aaker defines it as *"the set of human characteristics associated with a brand"* (Aaker 1997, p. 347). Aaker has also developed a scale to measure brand personality traits (Aaker 1997; 1999) and she has addressed to some extent how it can be used strategically. Recently, Aaker (1999, p. 55) suggested that future research should identify

the factors that influence how brand personality is developed. This thesis focuses on how country stereotypes can be used to develop international brand personalities.

1.2. Positioning

Country stereotypes are those simplified beliefs that consumers hold about countries (e.g., Hong and Wyer 1989; 1990; Maheswaran 1994; Janda and Rao 1997). A widespread country stereotype about, for instance, Japan is that "all Japanese cars are reliable". This simplified belief is based more on inference than on observations of reliability of Japanese products (Maheswaran 1994). Country stereotypes are developed from aspects of a country like *its people* or *its products*. In consumers' minds stereotyped country perceptions are organized as a cognitive category and are commonly conceptualized as part of a country image (Han 1989). Country images are composed of a variety of perceptions, which may be relevant or irrelevant, favorable or unfavorable to products from the country. For existing country perceptions to be useful in international branding, only *matching* perceptions that are both *favorable* and *relevant* to a target brand should be applied (Roth and Romeo 1992).

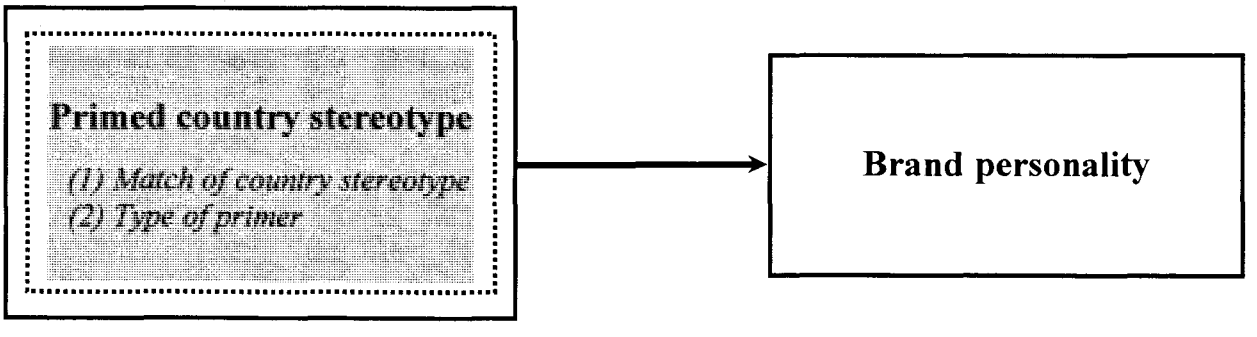
Priming is a technique that can be used to selectively evoke favorable and relevant country perceptions from a country image. A primer is a cue (i.e. the name Yves Saint Laurent), which is used to activate a particular country perception among the range of stored associations in a country image (i.e. sophisticated Frenchmen). When such cues are portrayed in ads or even in the context where the ad is presented (e.g., magazine articles or television programs), these cues can work as contextual primers (Yi 1990a; 1990b; 1993). According to priming theory it is predicted that a pre-activated phenomenon, such as a country stereotype, will impact later evaluations of the target brand (e.g., Wertheimier and Heidberger 1933). In this study country stereotype primers are applied to impact assessments of advertised target brands. When a country stereotype primer is revealed before exposure to a target brand, the primer can activate perceptions about the country, which encourage consumers to make inferences about the personality traits of the target brand. If this happens the primed perceptions are either assimilated into or contrasted away from the target brand.

What country perceptions are primed is determined by the type of cue used to activate it. When marketers try to develop brand personality primarily through advertising it seems important that the cues used to activate for instance a country stereotype are applicable for such purposes. Advertisers usually apply pictures rather than verbal stimuli to formulate an ad message (Mitchell 1986, p. 12; Mitchell and Olson 1981). Because pictures are more suitable

cues to apply in advertisements visual primers are tested in this thesis. This is in contrast to most other priming studies, which primarily test effects of verbal primers. Two types of primers are tested being (1) famous national products and (2) famous national people (icons). First exemplars of famous national products (such as Marlboro cigarettes from America) are relevant cues to prime country stereotypes because they often include perceptions of national products or brands (e.g., Han 1989; Maheswaran 1994). When famous national products/brands are used as primers the features they express presumably can be carried-over to other target brands. Secondly, country stereotype also tend to contain perceptions of national celebrities such as Michal Jordan from the USA. Moreover, such celebrities are commonly used as endorsers in advertising (e.g., Belch et al. 1987; Batra et al. 1996) because they express particular personality traits that can be carried-over to target brands.

In this study famous products and famous persons from a country are used as exemplar primers to activate certain country stereotypes. The two types of exemplar primers are chosen as they are predicted to result in divergent priming effects. Person exemplar primers are only believed to initiate assimilative processes when target brands are evaluated. Product exemplar primers are also believed to promote assimilation but they bring with them the risk of producing contrast as well. Conclusively, the predicted priming effects are partly determined by (1) the extent to which a primed country stereotype *matches* a target brand, and (2) by the *type of primer* used to activate the country stereotype. Figure 1 depicts a model of the relationship between the main study variables addressed in this thesis.

Figure 1: Effects of a primed country stereotype on the brand personality of a target brand



The *match* between the country stereotype and the target brand refers to whether or not the country stereotype in some sense matches the target brand. This variable is a matter of congruity between the primed construct and the target brand. The effect of Michael Jordan as a world-class basketball player paired with Nike basketball shoes illustrates the importance of a close match

between the personality traits of the source used as a brand endorser and the target brand. "The winner Michael Jordan plays basketball with Nike basketball shoes". When Michael Jordan is paired with Nike and a match is identified between them Michael Jordan's personality traits are assimilated into the brand imagery. It is unlikely that the rugged Marlboro Man would provide Nike with matching brand values to the same extent. In the same way, it is assumed that the level of match between a primed country stereotype and a target brand impacts the resultant priming effects. Therefore, in this study target brands are varied to differentially match a particular country stereotype.

The *type of primer* refers to characteristics of the primer like whether a product exemplar or a person exemplar is used as a cue to activate the country stereotype. In the literature there is a distinction between trait and exemplar priming, being a matter of which the primer is exposed directly as a single personality trait (i.e. winner) or indirectly as an exemplar of a particular category (e.g., Michael Jordan or Nike basketball shoes), which is a representation of the personality trait (e.g., Rothbart and Lewis 1988). In this study the focus is on exemplar priming and the reason for this is that exemplar primers are more practicable tools for application in advertising, which is an important and controllable source to build brand personality. Only target-category exemplar primers (e.g., the product Nike basketball shoes versus the product shoes), as opposed to non-target category exemplar primers (e.g., the person Michael Jordan versus the product shoes) are believed to stimulate contrast by comparison. Therefore both product exemplar and person exemplar primers are applied in this study.

1.3. Research questions

The objective of this doctoral dissertation is to study effects of country stereotypes on evaluations of brand personality by theorizing about the issue and utilizing methods from the contextual priming paradigm. It is proposed that prior exposure to contextual cues can prime certain country stereotypes and subsequently increase the likelihood that consumers will interpret target brand information in terms of these activated country stereotypes. As a primed country stereotype may activate stereotype beliefs, which can be transferred to the target brand, they are believed to impact individual brand personality beliefs. Inspection of the literature on stereotype priming reveals that several variables are identified as important antecedents of priming effects. In the following three studies, several of these antecedents are examined in a consumer behavior setting. The selected variables range from aspects of (1) *match* between a primed country stereotype and a target brand, and *(2) type of primer* (primer characteristics) utilized to activate

the country stereotype. These variables are briefly discussed below, and more thoroughly outlined in the subsequent chapters.

(1) *Match of country stereotype:* The term primer-target congruity was introduced by Stapel and Koomen (1997) and refers to the "interpretation applicability" of a primer in relation to a target object (Stapel and Koomen 1997). Several studies in cognitive consumer psychology show that the most important determinant of whether stereotype information is used during impression formation is its applicability to the understanding of a target stimulus (Higgins 1996; Kunda and Thagard 1996). In several studies Stapel and Koomen (1997; 1998) have verified that the extent to which a primed stereotype produces priming effects is determined by whether the primed stereotype matches (is applicable) the target stimulus so that it helps consumers to encode (interpret) the target. Primer applicability refers to a level of *congruity* between a primed country stereotype and a target brand where the focal point is some sort of "matching features" that aid consumers in understanding the target brand. The basic principle of the contextual priming paradigm is that a high match between a primer and a target determines whether the primed concept is assimilated into the target or not. In this setting, the question is whether matching dimensions between a primed country stereotype and a target brand have been assimilated into (absorbed by) the target, thereby impacting its brand personality. Hence:

Rq.1: How will (if at all) the level of match between a primed country stereotype and a target brand affect brand personality?

(2) *Type of primer:* According to Stapel et al. (1997; 1998), the type of primer utilized to evoke a stereotype determines the resulting type of priming effect. Despite this, most researchers treat the priming of traits and exemplars as interchangeable techniques (see Higgins 1996). This is a limitation of current research as these types of primers differ in the information they activate, which has consequences for how they impact evaluations of a target (Stapel and Koomen 1997; Stapel, Koomen and Van der Plight 1997). Trait primers such as "rugged" are too abstract to be used as anything else than an interpretive framework into which the target assimilates (e.g., Stapel et al. 1996). Stapel et al. (1997) state that the alternative priming effect to assimilation, contrast, cannot be produced by primed trait constructs nor by non-target category exemplar primers. It is only exemplar primers, of the same category as the target, which can produce comparative judgments leading to contrast. Stapel et al. (1997) explain this as a result of higher *comparison relevance* of target-category exemplar primers. Such primers are more likely to yield contrastive judgments as they activate information that is relevant for direct comparison with a

target. Therefore, when a primed category is the same as a target category, the primer is more likely to be used as a comparison anchor (Brown 1953; Stapel, Koomen and Velthuijsen 1998). This view is supported by several classical priming studies, which show that non-target-category primers produce assimilation while target-category primers also can produce contrast (Stapel and Koomen 1997; Stapel et al. 1997). In this setting the question is whether the level of comparison relevance, which is determined by the characteristics of a primer, stimulates either assimilative or comparison processes leading to contrast. Hence:

Rq.2: How will variations in the type of primer applied affect brand personality?

1.4. Organization of the theses

In order to explore the impact of primed country stereotypes on brand personality a precise definition of the dependent variable - the concept of brand personality - and a comprehensive understanding of its antecedents is essential. It is also crucial to clearly define aspects of the main independent variables as being (1) the concept of country stereotypes and (2) the concept of stereotype priming. Therefore, in the three following chapters the theoretical rational behind these variables is delineated. In Chapter 2, aspects of brand personality are defined, in Chapter 3 aspects of country stereotypes are delineated and in Chapter 4 aspects of contextual priming are discussed. After the general presentation of theory three empirical studies are presented, which shed light on how primed country stereotypes can impact brand personality in a marketing context. In Chapter 5 some initial hypotheses are formulated. In Chapter 6 a pilot study is outlined. Chapter 7 gives a detailed description of the methodology and findings of Experiment 1. In Chapter 8 hypotheses of an extended experiment are formulated. This study is partly a replication of the preceding one, but it also includes some additional variables that further explain the impact of country stereotype priming on brand personality. Chapter 9 reports the methodological design and the findings of Experiment 2. In Chapter 10 the results are discussed and some theoretical and managerial implications are mentioned. Finally, limitations of the studies are discussed and recommendations for future research are outlined.

CHAPTER 2

DEFINING BRAND PERSONALITY

2.1. Chapter introduction

A precise definition of the concept of brand personality and a comprehensive understanding of its antecedents are essential as this concept is the dependent variable of the three empirical studies of this doctoral dissertation. In the following chapter, the role of brand personality in consumer evaluations is outlined and aspects of how it can be developed strategically are emphasized. There is also a discussion of how brand personality can be measured empirically. Finally, the implications of these factors for the current studies are delineated.

2.2. Defining brand personality

Certain associations in a brand image are typically called brand personality associations, which include (but are not limited to) associations with particular characters, symbols, endorsers, lifestyles and types of users (Aaker and Fournier 1995). Combined, such brand personality associations create a composite image of a brand that is not very different from the image that we have of a person. Aaker (1997, p. 347) defines brand personality as *"the set of human characteristics associated with a brand"*. In so doing, she regards brand personality as consumers' perceptions of brands on dimensions that typically capture a person's personality – extended to the domain of brands. The conceptualization of brand personality is then a personality trait approach in which a brand's personality profile is a pattern of traits (Batra, Lehmann and Singh 1993).

Thus, brands may take on personality traits similar to people and a brand, like a person, can be characterized as being "modern", "old fashioned", "lively" or "exotic". Some examples are Gucci and BMW signifying "sophistication", Hewlett Packard conveying "competence", and Kodak reflecting "sincerity" (Phau and Prendergast 2000). A consumer might relate very intensely to one brand, such as Harley Davidson owners tattooing the motorcycle's logo on their bodies. A brand with the right personality can therefore result in a consumer feeling that the brand is *"my kind of product"*. For the same consumer, another brand such as an upscale retailer might be perceived as, *"you're not in my class"*. In addition to being characterized by these personality traits, brand personalities - like human personalities - imply associated feelings. Thus, just as it is possible to think of a brand as adventurous and excitable, it is also likely to associate it with feelings of excitement and fun (Batra et al. 1996).

Because it is found that consumers see brands as being American or French, young or old, and masculine or feminine (Birdwell 1968) it is argued that brands, as part of their brand personality, can have a nationality (also termed brand origin) and be treated as a demographic brand characteristic (Thakor and Kohli 1996). Examples of brands with a strong nationality can be found in product categories ranging from automobiles, with Porsche ads showing German engineers working on their cars, to beer, with Corona portraying Mexican lifestyle (Thakor and Kohli 1996).

2.3. The role of brand personality as a vehicle for self-expression

Extensive research has caused consumer psychologists to agree that brands are an important part of how individuals define themselves (Mehta 1999), and that brands have symbolic meanings through the projection of brand personality images. The purchase, display, and use of brands with a distinct personality serve a symbolic function for consumers and are vehicles that consumers use for self-expression (e.g., Grubb and Grathwohl 1967; Sirgy 1982; Aaker 1999). Consumers use brands to build distinctive lifestyles for themselves that match and reinforce their self-concepts (Sirgy 1982; Belk 1988). The effect of match between the personality characteristics of brands and consumers self-image has been thoroughly investigated. Many studies show that matches between consumers' self-image and the personality characteristics of a brand can moderate brand preferences. Brands that match the self-image of target customers are found to be highly favored and are therefore more likely to be chosen (Grubb and Hupp 1968; Dolich 1969; Sirgy 1982; Aaker 1999).

Dolich (1969) investigated the relationship between consumer self-image and brand preferences and found that favored brands were consistent to self-concept and reinforced it. In another study, Grubb and Hupp (1968) investigated self-image and its impact on brand selection and found that owners of one brand of automobiles were similar to other owners of the same brand and different from owners of another brand. Ackoff and Emsoff (1975) studied four commercials created for four brands where each commercial was produced with the specific personality of the consumer in mind. The result indicated that most consumers selected the brand that matched their personalities. This was true even though the four brands were similar beers except for the brand personality image created by advertising (see Vitz and Johnson 1965; Kassarjian 1971; Kassarjian and Sheffet 1991 for similar results).

Aaker (1999) conducted a recent study to assess the effects of brand personality on brand evaluations. In this study, Aaker investigated how brands were evaluated when they possessed a

strong brand personality that did or did not match the personality of a consumer. Aaker (1999) found support for the notion that individuals who identify themselves on a particular personality dimension have a greater preference for brands that highly symbolize that dimension. Advertising research has also found that the interaction between the brand personality image portrayed in ads and consumer self-image predictably moderates the persuasiveness of brand advertising (Shank and Langmyer 1993; Kassarjian 1971; Kassarjian and Sheffet 1991; Mehta 1999).

2.4. When are brand personalities more important?

As products become more and more alike in functional utility it is generally acknowledged that peripheral types of brand associations (Park, Jaworsky and MacInnis 1986), such as brand personality traits, become more important in building brand image and brand equity. International trends show that most westernized consumer markets increasingly emphasize the self-expressive functions of brands as their standard-of-living improves, needs that are more basic are satisfied and the need for self-expression increases. This means that the importance of building strong brand personalities intensifies and it is therefore crucial to understand how such brand associations are developed.

To the extent that consumers select brands because of the congruity between their self-image and the brand's personality, this self-definition rationale would be stronger for some product categories than for others. Specifically consumers are likely to "invest in their sense of self" in product categories that are socially conspicuous (e.g., Levy 1963; 1981; Belk 1978; 1988; McCracken 1993). Thus, consumers are more concerned about brand personality in product categories such as automobiles, clothing and fragrances than in paper towels (Batra et al. 1996). In other words, brand personality should be a more important determinant of brand evaluations in situations when the *social signaling value* of the brand is greater (Batra et al. 1996).

Another factor that research has shown as relevant is the extent to which the brand is "ambiguous" regarding its inherent quality level. If a consumer is not enough of an expert in a product category to clearly determine that the brand is of superior quality, then the consumer is more likely to rely on the image created through advertising to make that determination. Brand personality is more likely to sway consumer brand evaluations in such instances. Thus, occasions of ambiguous brand evaluations may arise for purchases of high-tech products, sensory (food,

drink, fragrance) products and consumer service situations (Batra et al. 1996). Brand personality is more likely to be important in such situations.

2.5. Measuring brand personality

There are various ways to learn about the brand personalities associated with different brands. Some are more direct and quantitative, whereas others are more indirect and qualitative. Among the qualitative techniques are various brand elicitation techniques (see Supphellen 2000). To illustrate that brand personality can be elicited: consumers may have little difficulty in describing a person using Marlboro cigarettes. By employing sufficiently sensitive questions, researchers can elicit rich and consistent descriptions of the personality of the brand character - "the rugged Marlboro Man". One projective technique used to reveal brand personality associations is free association where the subject is given a brand name and asked to provide the first set of words that come to mind. Examples of other techniques are sentence completion and photo sorts (Batra et al. 1996; Supphellen 2000).

Among the quantitative techniques available, perhaps the simplest is to have consumers rate a brand on various personality adjectives that comprise a "brand personality profile" (Plummer 1985). A brand personality profile describes a brand as seen from a consumer perspective, and the profile should identify salient components of a brand's personality traits. That is, it should indicate which brand personality dimensions are strong and which dimensions are weak. To date brand personality profiles in most cases are measured through consumer surveys (Plummer 1985). In addition to being characterized by brand personality traits, brand personalities imply associated feelings (Batra et al. 1996, p. 322). General brand feelings are often reported as overall measures such as "this brand is good or bad" or "this brand is favorable or unfavorable". General brand feelings are usually measured because specific emotions are harder to reveal. It is difficult for people to find words to express their explicit emotions, as these are typically unconscious and non-verbal (Supphellen 2000). To overcome this problem Burke and Edell (1987) have developed a scale, based on a pre-defined list of emotions, which contains a large number of verbal descriptors such as "pleased", "excited" and "inspired". This scale can be used to reveal brand personality feelings but not brand personality beliefs. In resent research, Jennifer Aaker (1997) has developed an inventory of forty-two brand personality adjectives, which comprehensively cover five brand personality factors: *sincerity, excitement, competence, sophistication*, and *ruggedness*. This inventory settles the number, as well as the nature of brand personality dimensions that can be generalized across product categories (Aaker 1997). Aaker's

scale can be used to identify brand personality associations by letting respondents tick off the associations that are connected to a particular target brand from a list of personality traits. The latter type of measurement technique is applied in this research.

2.6. How are brand personalities developed?

Creating brand personality associations literally involves "personification" of a brand, where customers perceive the attributes they aspire to as being strongly associated with a brand (Aaker 1996). Although some research exists on consequences of such brand personalities, yet little understanding has been attained about how to deliberately build strong brand personality traits. Plummer (1985) argues that perceptions of brand personality traits can be influenced by any direct or indirect contact that the consumer has with a brand. Potential sources of brand personality associations include advertising, own brand usage, word-of-mouth communication, sponsoring, perceptions of typical users and perceptions of brand endorsers, etc.

According to Biel (1993), a brand may have three sub-images, which contribute to build up its brand personality in different ways depending on the product category. These are (1) the image of the brand producer, (2) the image of the brand user and (3) the image of the product category itself. In the case of Marlboro for instance, an image is evoked of ruggedness and masculinity for this brand. The corporate image of Phillip Morris hardly plays any role: perhaps the strongest contributor is the impression people have of the typical brand users. The material and the design of the goods carrying the brand, like the Marlboro leather jeans, also give signals about the personality of the brand.

The easiest way of creating a brand personality is to give the brand a spokesperson or a figurehead, whether real or symbolic (Kapferer 1998). Human traits of such brand endorsers or even profiled company employees can induce a brand with brand personality associations. Many brands have a character, which for example can be either the brand creator and endorser (Herman Friele for Friele Coffee and Mr. Robert Ricci for the Nina Ricci perfume) or an endorser other than the creator (Gerard Depardieu for Barilla Pasta). Others serve as brand ambassadors, like Juliette Brioche, who embodies the type of French beauty that Lancôme promises to all women. It is thus believed that famous icons from a country, like famous people, can imbue brands with brand personality traits. Animal emblems are also often used to symbolize a brand's personality. The animal used is not only figurative of the brand personality but also of the psychological characteristics of the target public (Kapferer 1998). For instance, Clan Campbell's hawk symbolizes the independent mind and free spirit of the drinker of this

particular whisky. Moreover, the red grouse, symbol of Scotland and a rare bird, has been chosen as the emblem of Famous Grouse Whisky in order to reflect the aesthetic ideal of its consumers. Animal emblems can also be a direct symbol of the brand's qualities like Nestlé's bunny rabbit symbolizing softness and gentleness.

Although all aspects of the marketing program may affect brand personality, advertising may be especially influential because of the inferences consumers make about the underlying user or usage situations depicted in the ad (Keller 1998). Advertising affects brand personality by the manner in which it depicts the brand: the actors in the ads, the tone or style of the creative strategy, and the emotions or feelings evoked by the ad, for example. Advertisers can also imbue a brand with personality traits through product animation techniques, by brand characters or through the creation of user imagery (Keller 1998). Such cues portrayed in ads, or in the immediate context where the ad is presented (magazine articles, television programs, etc.), can be regarded as contextual primers (Yi 1990a; 1990b; 1993). When priming cues are carefully selected by marketers, they can activate specific thoughts that encourage consumers to make inferences about brand personality beliefs (e.g., Hubert and McCann 1982). Therefore, the priming technique can be an efficient tool in building brand personalities when the priming cues are chosen purposely to form an ad message. Priming cues can also be used in the ad context to frame the viewers mind before being exposed to an ad (Yi 1990a; 1990b; 1993).

2.7. Study implications

Primarily this chapter has shown that brand personalities can impact brand evaluations favorably and provide added value to target brands when the brand personality matches the self-concepts of significant consumers. Then it was found that brand personality could be measured as overall or specific feelings and as overall or specific personality traits. It was shown that brand personality develops when the personality traits of certain brand endorsers, brand characters or brand users are connected to a specific brand. From this it can be predicted that national icons, like famous people from a country, can imbue brands with brand personality. It is predicted that certain priming cues, which are applied in advertisements or in the ad context, can elicit specified personality traits that subsequently are connected to the advertised brand.

CHAPTER 3

DEFINING COUNTRY STEREOTYPES

3.1. Chapter introduction

A precise definition of the concept of country stereotypes and a comprehensive understanding of its antecedents is essential, as it is the main independent variable of the three empirical studies. In this chapter, the concept of country stereotypes is defined. Thereafter, characteristics of country stereotypes are outlined and various types of stereotype perceptions are explained by examples. Then there is a discussion how country stereotypes can be activated and applied in brand evaluations. Finally, the implications of these factors for the current studies are delineated

3.2. Defining country stereotypes

Social psychologists define country stereotypes as "*simplified generalizations about people, products or places, which carry within them assumptions about their traits and features*" (McCauley and Stitt 1978). Nagashima (1970) refers to country stereotypes in a more narrow perspective as *"the picture or the reputation that consumers attach to products of a specific country"*. From this it can be concluded that stereotype categories exist for countries as well as for products and people from a country (McCauley and Stitt 1978). According to Nagashima (1970; 1977), country stereotypes are part of an overall country image, which is created by such variables as representative products, national characteristics, economics, political background, history, and traditions.

Although country stereotypes are biased, they can play a constructive role in providing coherence, simplicity, and predictability in complex decision settings (Taylor 1981). Cognitive efficiency is part of the reason Oakes and Turner (1990) argue that stereotyping is also a way to enable consumers to attach meaning to a target brand, for instance. Country image research implies that consumers form beliefs about products and brands based on their perceptions of the products' home country (Nagashima 1977; Bannister and Saunders 1978; Papadopoulos and Heslop 1993). Research on country-of-origin effects shows that stereotyped beliefs about a country can be transferred to brands and become brand associations (e.g., Bannister and Saunders 1978; Nagashima 1977). This research shows that general ideas about a country cause inferential beliefs about attributes and features of its products and brands (Janda and Rao 1997; Han and Terpstra 1988; Ericskon, Johansson and Chao 1984). Merely classifying a brand as a product from Germany enables consumers to *make inferences* about the qualities of the brand based on their philosophies of Germans and German culture.

3.3. Types of country stereotype perceptions

Country stereotypes are not solely developed based on individual experience; they can be transmitted though social learning (Bruner 1957; Tajfel and Forgas 1981). Social learning directs how information is selectively perceived and therefore country stereotypes develop based on selective perception of country information. Various influences such as family, peer-groups, education and media influence which information is selectively perceived (Bruner 1957; Tajfel 1981). As a result of selective perception, several studies show that country stereotypes are relatively uniform within a country (Sawyer 1967; Jones and Ashmore 1973; Peabody 1985; Hooley, Shipley and Krieger 1988; Janda and Rao 1997). Although stereotyped perceptions of a country might be homogeneous for a given country population, the content of stereotyped beliefs is found to vary considerably across countries (Baumgartner and Jolibert 1978). Koomen and Bähler (1996) conducted a study to examine the convergence of country stereotypes and they found that different sub-groups, in different countries, appeared to agree on the stereotypes attributed to the different nationalities. To illustrate their findings, the French were perceived as happy amorous, hard working, pleasure loving and excitable. The British were ascribed as cold, stiff, reliable and hard working. The Germans were attributed as energetic, scientific, hard working, disciplined, and dutiful, while the Italians were perceived as happy, amorous, pleasure loving, lazy, excitable, and romantic. Thus, previous studies show that there is considerable consistency across cultures in the features used to describe nations (Sawyer 1967; Jones and Ashmore 1973). It is not equally clear, however, how general the convergence is of such stereotyping among nations. Tajfel and Forgas (1981) found that the relative weights that different country populations allocate to various perceptions of countries vary significantly.

3.4. Characteristics of country stereotypes

When consumers attach stereotyped beliefs to brands it can impact brand evaluations positively or negatively depending on the characteristics of the country stereotype. According to Janda and Rao (1997), characteristics of country stereotypes can be described by three dimensions, namely: *(1) their generality or specificity, (2) their strength or weakness, and (3) their positive or negative nature. Firstly*, country stereotypes can range from a generic level to a very specific level, which is regarded as a hierarchical structure of specificity (Janda and Rao 1997). Country stereotypes can extend from a very generic level (Japanese products are innovative), to a more specific level such as a particular generic product domain of a country (Japanese hi-tech products

are innovative), to an even more explicit level (Japanese automobiles are innovative). The continuum could extend even further to specific dimensions such as brands (Honda is innovative), or to brand models (Honda Accord is innovative). *Secondly,* country stereotypes can be either strong or weak. A strong stereotype would be one endorsed by many in society while a weak stereotype would be one that is not at all pervasive. Stereotypes are strengthened when new information is consistent with existing stereotype beliefs. Confirming information also intensifies subsequent stereotype judgments. *Finally,* country stereotypes can be either positive or negative. A positive country stereotype implies a greater likelihood of a positive evaluation of an object, and vise versa (Janda and Rao 1997).

3.5. Country stereotypes as cognitive categories

The concept of cognitive categories is useful to explain what a country stereotype is and how it works (Fiske and Tylor 1991; Hastie 1981; Wyer and Srull 1989). Considerable empirical evidence supports the notion that country stereotype categories develop due to a tendency to engage in broad generalizations and simplifications of complex phenomena (e.g., Fiske 1993; Devine 1989). A country stereotype category embraces the range of information about a country (Jussim, et al. 1987), and all the stereotype perceptions in a country category represent an integrated country image. Such country images are comprised from a whole set of stereotype beliefs about national traits and attributes (Hong and Wyer 1989; 1990). An example of a bundle of country perceptions, which constitute a country stereotype category, is the archetype impression of Frenchmen. The perception of a Frenchman is "a man wearing a beret, carrying a baguette, and being a hedonistic, wine and cheese consuming individual". Some traits have stronger links to this country stereotype than others do (see e.g., Solomon and Assael 1987; Lowrey et al. 2000).

When consumers have developed a stereotype country category in memory, they encode additional information in accordance with their categorical expectancies (Higgins and Bargh 1987; Janda and Rao 1997). New members of the category are identified with the country perceptions which establish the category (McCauley and Stitt 1978). For this to occur for a product, the country perceptions should in some sense match perceptions about the product. A product/country match would occur when salient country perceptions match functional product attributes or symbolic brand features (Roth and Romeo 1992). To exemplify this, France may be associated with good design, sophistication and prestige, all being important features for perfume as a product category. However, these features do not match equally well with fruit juice.

3.6. Cognitive processing of country stereotypes

The strength of a country stereotype affects consumer attention to it and how automatically it is activated by, for instance, a contextual primer. With repeated and frequent activation, country stereotypes become cognitive categories that are used automatically and often unconsciously (Devine 1989). As stereotypes are highly accessible in memory, they may influence consumer evaluations before other personal beliefs (Devine 1989). This explains why stereotypes are more often used as heuristic tools in consumer evaluations under paucity of time conditions when personal expertise does not have a chance to influence. Country stereotype priming is held to be most influential when an individual has little first hand knowledge available of a target brand (Gold 1994). Moreover, country stereotype priming is held to be more influential when a target brand is described ambiguously or incompletely, leaving room for individual interpretation (Higgins 1996; Stapel et al. 1997). In such situations, consumers are less able to evaluate target brands along functional attributes. With a lack of information or knowledge about *intrinsic* product cues (Szybilli and Jacoby 1974), consumers tend to apply *extrinsic* cues (Szybilli and Jacoby 1974), such as a country stereotype primer as input to evaluate a target brand. When consumers use product information in this way, it is commonly referred to as *heuristic* information processing (Petty, Cacioppo and Schumann 1983; MacKenzie and Spreng 1992). From this it follows that a target brand would be most influenced by a primed country stereotype when the evaluator is not familiar with the target brand (Gold 1994), when the target brand is described ambiguously (Higgins 1996), or when the product information provided is incomplete (Stapel et al. 1997).

3.7. Study implications

This chapter has shown that stereotype perceptions about a country, its people or its products can impact brand evaluations when the country stereotype in some sense matches the brand. It is predicted that certain cues used to activate a country stereotype can evoke country perceptions and emotions that subsequently will be linked to a brand. It is moreover expected that a brand will be most influenced by a country stereotype when the brand is described ambiguously and incompletely or when knowledge about the target brand is limited.

CHAPTER 4

CONTEXTUAL PRIMING - REVIEW AND SYNTHESIS

4.1. Chapter introduction

A precise definition of the concept of contextual priming and a comprehensive understanding of its antecedents and consequences is necessary, since contextual priming is the technique applied to test whether country stereotypes can impact brand personality. In the following chapter, the concept of contextual priming is defined and its role in consumer research is reviewed thoroughly. Thereafter different types of priming effects are delineated and the factors driving these effects are discussed. Then a model of a "net contextual priming effect" is sketched out and the influence of divergent primer characteristics is discussed. Finally, the implications of these factors for the current research are delineated.

4.2. Defining contextual priming

Since the classical Meyer and Schvanevelt (1971) work on linguistic context and the priming of semantic information, numerous studies have been reported, both in the cognitive psychology literature (see Ratkliff and McKoon 1988, for a review) and in the social psychology literature (see Wyer and Srull 1989, for a review), that demonstrate that the presentation of one stimulus, called the prime, can alter the perceptions and interpretations of a second target stimulus. The whole idea is that exposure to some prior primer increases the accessibility of information already existing in memory and the activated information impacts assessments of a subsequently exposed target object. Contextual priming simply refers to the fact that recently activated ideas come to mind more easily than ideas that have not been recently activated (Fiske and Tylor 1984, p. 231). A primed construct can "fill in" missing information about a target object with which respondents are unfamiliar (e.g., Wertheimer in Heidberger 1933; Johnson and Levin 1985). Higgins and his adherents (e.g. Higgins, Rholes and Jones 1977; Lombardi, Higgins and Bargh 1987) laid the groundwork for current research on effects of contextual priming. In a review article, Higgins (1996) defined contextual priming effects as:

> "... the influences on target impression formation and judgments that are the result of any non-target factor that makes particular knowledge relatively accessible – be it primed attributes or traits, exemplars of the target category, moods, emotions, or even personal goals and motivations ... "

These researchers work within the domain of personality impression formation and their approach to contextual priming research is to prime subjects with a stereotype personality trait

and then ask them to read a description and form an impression of an ambiguously described person. They consistently find that subjects tend to characterize the person in terms of the stereotype personality traits being primed (e.g., Bargh and Pietromonaco 1982; Higgins et al. 1977; Srull and Wyer 1979). This research has shown how accessible knowledge about a person, provided by a contextual primer, can influence attention to and interpretations of a target stimulus. It has also shown how target objects are encoded, stored, retrieved from memory, and how they are evaluated (e.g., Higgins 1996; Martin and Tesser 1992; Stapel and Spears 1996; Wyer and Srull 1989). Higgins has produced substantial evidence that simply activating a construct in one task, that is contextual priming, increases the likelihood for it to be used later to categorize a target object in a subsequent, unrelated task (see Higgins 1989 for a review). Yet, contextual priming does not always cause the activated information to be incorporated into subsequent interpretations or judgments of a target. When certain kinds of information are made accessible, such as stereotypes, they may produce no change in subsequent judgments (Devine 1989), or they may produce contrast effects (Herr 1989; Herr, Sherman and Fazio 1983; Martin 1986), where the resulting judgment is in a direction opposite than that suggested by the prime.

As the priming paradigm has developed over time it is apparent that effects of contextual priming studies are usually verified by one out of three tests: (1) *semantic priming studies, (2) feature priming studies and (3) categorical priming studies.* In semantic priming studies (Collins and Lofthus 1975; McKoon and Ratcliff 1995; McNamara 1992), subjects decide whether an item, such as "dog", is a word or a non-word. Subjects give responses more quickly and accurately when the item is preceded by an associated word, such as "cat". In feature priming studies, a subject is exposed to a primer that is associated with a particular attribute or feature, which then is weighted more heavily in evaluation (Yi 1990a(1990b). Finally, in categorical priming studies a person's classification and judgments of another person, a product or an object are influenced by a category construct, such as a stereotype, which is activated in an earlier priming task (Herr 1989). Herein categorical priming will receive most attention.

4.3. Evidences of contextual priming in consumer research

To date the understanding of how contextual priming impacts consumer judgments is limited. Despite the substantial amount of research in the field of contextual priming, it is not entirely clear what direction such priming effects may take for products or brands. A review of the literature reveals an extensive number of empirical and theoretical studies on priming of social stereotypes in social cognition research, where ambiguously described persons are used as

targets. In these studies the main variables that have been examined are primer accessibility (Higgins and King 1981; Wyer and Srull 1981; Higgins and Brendl 1995), primer applicability (Higgins 1989; Higgins and Brendl 1995; Stapel and Koomen 1998), different types of primers (Stapel and Koomen 1997; Stapel et al. 1997; Moskowich and Skurnik 1999), and primer extremity (Herr 1986; Petty and Wegner 1993; Moskowich and Skurnik 1999. For a full review, see Table 41 in Appendix I).

Only a handful of studies have been conducted where the contextual priming technique has been applied in consumer research. The key issue underlying these studies is under what conditions a pre-exposed primer has an effect on product or brand assessments. Typically, particular product attributes are primed, which are expected to impact later interpretations or evaluations of the target product. In one study by Stapel et al. (1998) the single attributes "casual" and "elegant" were primed prior to appraisal of an ambiguously described restaurant. In another study, Wänke et al. (1998) examined whether or not the primed product attributes "typical sports car" and "great design" impacted the acceptance of a product line extension of a compact car. A third study looked at how a primed product category influenced the acceptance of a brand alliance between two different restaurant categories (Levin and Levin 2000). Finally, a current study found that visual web page backgrounds, employing pictures and colors as primers, influenced consumer product choice (Mandel and Johnson 2002).

Recently the priming paradigm has also been applied to advertising research (Herr 1989; Yi 1990a; 1990b; 1993; Schmitt 1994). The influences of a prior contextual primer provided by advertising seem to have received most attention (Herr 1989). This research suggests that components of the ad content (e.g. symbols and icons used in ads; Stafford 1996) or even the ad context (e.g. the media where an ad is presented; Yi 1993) might be considered contextual primes, which can impact evaluations of an advertised product. When, for instance, a brand is placed in an ad context with a message that "matches" the brand, this message is expected to affect brand beliefs and brand evaluations (Stapel, Koomen and Velthuijsen 1998). The primers making up the advertising message (symbols and icons) or primers presented in the ad context (media)[1] are expected to influence brand beliefs and brand evaluations by making particular attributes or traits relatively more accessible than others (Tybout and Artz 1994; Schmitt 1991).

In the country image field of research, no studies of people impression formation induced by contextual priming are found. To this researcher's knowledge, only three studies have applied priming techniques to address the effect of primed country-of-origin cues on product

[1] In one experiment, Yi (1990a) employed a print advertisement for a car and showed that subjects interpreted the attribute's "large size" more positively and evaluated the car more favorably if the ad was embedded in a magazine article focusing on safety rather than on fuel economy.

evaluations (Hong and Wyer 1989; 1990; Li and Wyer 1994). These studies show that pre-exposed county-of-origin cues can affect product category evaluations as well as interpretation of additional product attributes (Hong and Wyer 1989; 1990). These researchers looked at how country-of-origin cues affected product evaluations when country-of-origin was presented before, together with or after other product information. As predicted by contextual priming research, they showed that when a country-of-origin label was presented before other product information it influenced how much respondents elaborated on the available information and how they interpreted it (Hong and Wyer 1989; 1990). The focal point was on the underlying cognitive processes that made simple "made-in" cues work.

No country-of-origin studies have addressed how product-unrelated country perceptions can influence brand inference making and brand evaluations[2]. To address this issue the focal point of this thesis is how non-product related country perceptions, like symbolic features of people from a country, could affect brand inference making. Although there seems to be a large potential in priming country stereotypes to build brand imagery, this area of research is only beginning to develop. Currently the concept of "brand origin" (Thakor and Kohli 1996; McCracken 1993) has been introduced referring to national characteristics of brands, but this concept has not yet been tested empirically. This thesis will contribute to shed some light on this issue.

Table 1 depicts the areas of contextual priming research, which has been developed to the greatest extent theoretically and which has had the largest contributions of empirical findings. Table 1 summarizes a comprehensive literature review of contextual priming studies, which is presented in Table 41 in Appendix I.

[2] To date country-of-origin research primarily has focused on how simplified perceptions of product-related country qualities can affect product category evaluations (e.g., Han 1989; Johansson 1989; Hong and Wyer 1989; 1990; Maheswaran 1994).

Table 1: State of knowledge concerning effects of stereotype priming on brand associations

	Stereotype priming	**Country stereotype priming**
Target persons or objects	*Extensive*	*None*
Target products or brands	*Limited*	*Very limited*

Table 1 shows that extensive research has been conducted in cognitive psychology (see Ratkliff and McKoon 1988) and in social psychology (see Wyer and Srull 1989) where social stereotypes are primed and persons or objects are the targets. A few studies have applied the priming technique to consumer research where mainly product attributes are primed and product categories are used as targets. The current study looks at country stereotype priming where brands are the targets. Table 1 shows that, thus far, only a few such studies have looked at this. The present study will contribute to fill this gap.

Although priming studies are limited in consumer settings, there is a great potential of applying this technique to consumer research. According to Levin and Levin (2000), generalizations of research from contextual priming effects on person perceptions in social psychology, to product perceptions in consumer psychology, are natural and logical. They argue that both personal perceptions and brand perceptions are multidimensional (multi-attribute). Furthermore, both involve cognitive and affective components. In addition, both are affected by exemplars and overall category judgments, stereotypes in the one case and brand equity in the other. Finally, both are affected by direct (firsthand) and indirect (secondhand) experience (Levin and Levin 2000).

4.4. Antecedents of contextual priming effects

The assumption behind contextual priming is that easily accessible concepts direct attention to selective aspects of information and thereby affect the interpretation of a target stimulus. How a target stimulus is interpreted depends on the concept that is most accessible in consumers' minds at the time information about the target is received (Srull and Wyer 1980). The more easily or

quickly a given target stimulus can be encoded in terms of a primed construct, the less stimulus information is necessary for categorization to occur (Bruner 1957). This comprehension of contextual priming effects is primarily based on "accessibility theory" (Heider 1944), which refers to a set of theories that explains the manner in which accessible information directs categorization and judgments of a target object.

Studies show that a person's interpretation of a target depends on how easily a primed concept comes to mind (e.g., Higgins and King 1981; Wyer and Srull 1981). *Information accessibility* refers to a primed construct's pre-stimulus preparedness for activation, its "activation potential" (Higgins and Brendl 1995). The level of accessibility is relevant because the greater the likelihood that a concept is activated, the greater the likelihood that it is used in judgments of a target (Higgins and Brendl 1995). There is substantial evidence that individual differences in "chronic accessibility" of a particular construct relate to differences in responding to a target stimulus.

In addition to information accessibility, Higgins and Brendl (1995) have found that *information applicability* also contributes to the likelihood of a construct reaching activation threshold.[3] Contextual priming effects therefore, not only depend on how readily information is made cognitively accessible, but also on how relevant (applicable) the primed information is to help interpret a target stimulus (Stapel and Koomen 1998). The level of interpretation applicability of the primed information indicates to what extent there is a match (semantic overlap) between a primer and a target (Higgins 1996), which again determines the resultant priming effects[4].

Information accessibility and information applicability are the two basic principles guiding contextual priming effects. Both factors add to a construct's *excitation level* (Higgins 1989) and the higher a construct's excitation level, the greater the likelihood that it will be activated by a primer and used to evaluate a target stimulus. From this perspective, accessibility and applicability are two independent sources, each contributing the activation of a country stereotype by a contextual primer, for instance. Higgins and Brendl (1995) propose that a higher excitation level from stronger applicability can compensate for a decreased contribution from lower accessibility, and vice versa.

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[3] Several studies in cognitive consumer psychology show that the most important determinant of whether stereotype information is used during impression formation is its applicability to the interpretation of a target stimulus (Higgins 1996; Kunda and Thagard 1996). Stapel and Koomen (1998) have verified that the extent to which a primed stereotype produces assimilation, contrast or no effect is determined by whether the stereotype possesses or lacks applicability to the target stimulus or not.

[4] The concept of congruity is a matter of applicability of the primed information in relation to the interpretation of a target (Martin 1986; Higgins 1996). In a pioneer experiment on interpretation applicability of accessible information, Higgins, Rholes and Jones (1977) assigned participants to experimental conditions that surreptitiously activated traits that were applicable to a target description or traits that were non-applicable. The result showed that only the activation of applicable traits influenced participants' later characterizations of the target stimulus (see also Srull and Wyer 1979; Higgins 1996).

4.5. Defining two key priming effects - assimilation and contrast

Priming research focuses on how perceivers describe a target stimulus by drawing the perceived stimulus towards or pushing it away from an earlier primed construct. Of primary importance in contextual priming studies is whether the primed information serves as an interpretive frame promoting *assimilation* of the target toward the context. However, in social judgment research, it has been repeatedly demonstrated that assimilation is only one possible outcome of contextual influences. In many instances contextual information may produce *contrast* and this happens when the primed information is contrasted away from the target due to standard-of-comparison or correction processes. Below the underlying rationale of these cognitive processes is defined.

(1) Assimilation is the manner in which people apply primed information by using it as an interpretation frame for subsequent encoding of information. According to Higgins, (1996) this happens when there are some sort of connections between the primed information and the target subjected to encoding.[5] Higgins therefore explains assimilation as the process of interpreting new information as consistent with a target category. Along the same lines, Moskowitz and Skurnik (1999) describe assimilation as the process involved when a primed construct is used to describe another construct by drawing this toward the accessible construct.

A body of studies verifies that stereotypes can serve the role of interpretation frames and thereby result in assimilation (Higgins 1996). Studies also confirm that consumers assimilate their responses toward the descriptive associations of a primed stereotype (Allen and Janiszewski 1989; Herr 1989; Mathur and Chattopadhyay 1991; Meyers-Levy and Sternthal 1993; Schumann and Thorson 1990; Shimp, Stuart and Engel 1991). Assimilation is expected to impact target assessments positively in the sense that the target is rated stronger on the activated stereotype perceptions. If the primed stereotype activates positive or negative sentiments, these emotions can also be assimilated to the target and impact it positively or negatively

The two key elements that have been found to determine whether assimilation occurs are: (a) the primed information must be relevant or match the target stimulus (e.g., Higgins et al. 1977; Higgins and Brendl 1995), and (b) the description of the target stimulus must be ambiguous and somewhat open to interpretation (e.g., Stapel and Koomen 1997; Moskowitz and Skurnik 1999). Assimilation of stereotype perceptions only happens when the stereotype in some sense matches the target (Myers-Levy and Sternhal 1993; Herr 1986; Herr, Sherman and Fazio

[5] Higgins (1996, p. 147) states in a review of the knowledge accessibility literature, "all accounts of accessibility effects are in terms of 'associations', 'linkages' or 'connections' that permit the activation of one knowledge unit to influence the activation of the potential of another".

1983; Srull and Wyer 1979; 1980). Assimilation implies that a primed stereotype influences interpretations of a target stimulus in the direction of the stereotype through an unconscious process of feature matching (e.g., Wyer and Srull 1989). However, primed information is not always incorporated into subsequent judgments (Devine 1989). If primed information produces no change in subsequent judgments because the activated information does not match the target stimulus, this is referred to as an *"early exit"* (Martin 1986; Schwarz and Bless 1992).

(2) Contrast is the opposite of assimilation in the sense that the resultant priming effect is in a direction opposite to that suggested by a primer (Herr 1986; Herr Sherman and Fazio 1983; Martin 1986). According to Higgins (1996), contrast is the process involved when perceivers push a target construct away from a perceptually ready interpretation. When contrast occurs, primed information is simply used to illuminate the stimulus in a manner that makes it seem opposite to the accessible information (Heider 1944; Higgins 1996; Moskowitz and Skurnik 1999)[6]. New research has examined alternative ways in which contrast judgments emanate. The differential cognitive processing styles involved in producing some contrastive judgment effects range from unconscious reactions to extremity of stimuli (Herr 1986; 1989) to conscious recognition of the obtrusiveness of stimuli (Martin 1986; Martin, Seta and Celia 1990). Several models predict contrast effects when the context and the target are not assigned to the same category, although the specific theoretical assumption differs to some degree. Today there are two main contrast effects discussed in the literature: (1) the *standard-of-comparison model* and (2) *the correction model.* The basics of these two models are outlined in the following. Subsequently, a third model is discussed, *the inclusion/exclusion model*, which is developed to integrate the two perspectives on contrast effects.

The standard-of-comparison model of contrast effects: The standard-of-comparison model of contrast implies that activated information not only provides us with colored glasses through which we perceive reality, but also with strong anchors against which we compare that reality. This model has its roots in "the social judgment theory" and the concept of latitudes of acceptance and rejection (Sherif and Hovland 1961). It predicts that people use primers as comparison standards in subsequently related judgments. Stapel and Koomen (1997) argues that assimilation through interpretive framing occurs during encoding of information about the target,

[6] Heider (1944) describes contrast as a case of dissimilation: a process whereby an actor performs an act, and the qualities of the actor color the interpretation of the act, making the act and the actor seem "as much unlike each other as possible".

whereas contrast through comparison with a standard occurs during the judgment stage[7]. Contrast as a standard-of-comparison effect is understood as disintegration of primed information, and it occurs when perceivers "push" the target away from a congruent interpretation. Primed information is simply used to illuminate the stimulus in a manner that makes it seem opposite to the accessible information. Wyer and Srull (1989) argue that primed information is more likely to serve as a comparison standard when a distinct "match" between a primer and a target is activated. The standard-of-comparison model proposes that contrast is a function of the level of *congruity* (feature match) between a primer and a target. Contrast occurs when the matching features subsequently are compared because the primer is highly *comparison relevant* and because the primer is a more *extreme* representation of the primed construct than the target (Herr, Sherman and Fazio 1983; Stapel et al. 1997).

A correction model (the set-reset model) of contrast effects: Whereas comparison-based approaches on contrast effects focus on changes in the representation of the comparison standard, other process assumptions focus on changes in the cognitive representations of the target (such as schema modifications) caused by correction processes. This perspective addresses the current debate regarding the distinction between "automatic" or "spontaneous" effects of stereotype priming versus "corrected" or "controlled" effects (see Martin 1986; Martin et al. 1990; Schwarz and Bless 1992; Wegner and Petty 1995). According to correction models, assimilation and contrast effects of priming can be explained by the perceived awareness of the primed information (Stack, Martin and Schwarz 1988; Wegner and Petty 1995).

Several models posit that assimilation and contrast arise from people having difficulty determining if characteristics of a target stimulus shaped their judgment (which seems a reasonable basis for judgments), or if it was shaped by a primed construct (which seems a biased basis for judgments). Martin's set-reset model assumes that individuals may find that the use of primed information in forming a representation of a target may be inappropriate (Martin 1986; Martin et al. 1990). Individuals may be aware that primed information came to mind for some irrelevant reason, which very often is the case when the primer is presented blatantly (e.g., Lombardi et al. 1987; Martin 1986; Stack et al. 1993). In such situations consumers' inability to

[7] Phillipot, Schwarz, Carrerera, De Vries and Van Yperen (1991) have demonstrated that the direction of priming effects may depend on whether accessible information is used in the encoding stage or in the judgment stage of impression formation (see also Wyer and Srull 1989; Schwarz and Bless 1992; Higgins 1996). If accessible information is used in encoding of a target object, it will most likely lead to assimilation or null effect. On the other hand, if accessible information is used to judge a target object it may lead to contrast (Stapel and Koomen 1997). Priming effects in the encoding stage are often regarded as more immediate and unconscious, whereas priming effects in the judgment stage might require more strenuous elaboration.

differentiate between their genuine reaction to a target stimulus and what has been contributed by irrelevant forces, such as primers, can lead to contrast effects.

In Martin's set-reset perspective, assimilation and contrast depend on whether people perceive a primed construct to be a biasing influence. In an attempt to remove a potential source of *bias* from their judgment, people try to *correct* their judgments by deducting the perceived biasing influence. If there is a high level of congruity (feature overlap) between a primer and a target stimulus, people may not make a perfect discrimination between their reaction to the priming task and their reaction to the target (Martin et al. 1990). Since source discrimination tasks are difficult, one can remove the contribution of a primer from judgment by excluding this information, however by doing so one would also extract part of one's genuine reaction to the target. This is essentially a case of (1) misattributing the perceptual fluency associated with a primer to a target and (2) over-correction for the influence. Another consequence is that one can attempt to correct for a primer's biasing influence, but do so insufficiently leaving a portion of the primer's influence intact. The amount of the primer continuing to contribute to judgment would depend on how much perceived biasing influence there was and on the amount of cognitive resources applied to the judgment task (Meyers-Levy and Tybot 1997).

The dimensions of the set-reset model predict that people attempt to remove the influence of a primed construct from the final judgments of a target stimulus in an attempt to correct for a perceived bias. The consequence is that less construct-related information is expressed in the judgments – resulting in contrast. According to the set-reset model, extreme primers share fewer features with the target, resulting in a smaller perceived biasing influence and decreased contrast. Conversely, moderate primers would lead to increased contrast (see Moskowitz and Skurnik 1999 for a review).

The inclusion-exclusion model of contrast effects: More recently, Schwarz and Bless (1992a) have proposed an inclusion-exclusion model of assimilation and contrast effects that extends Martin's set-reset analysis, and have tried to combine it with the standard-of-comparison model of contrast effects. Schwarz and Bless (1992a, p. 221) assert that:

> "The inclusion of a given piece of information in the temporary representation of the target category is a necessary prerequisite for the emergence of an assimilation effect, whereas the exclusion of a given piece of information from that representation is a necessary prerequisite for the emergence of contrast effects".

The basic tenets of this model can be summarized in five brief statements: (1) Contextual information that is clearly irrelevant to the judgment task will be ignored and will not influence

judgments (an *"early exit"* occurs in which no assimilation or correction for assimilation takes place). (2) The *default* is to include potentially relevant contextual information in the representation of the target, which produces assimilation, if no exclusion takes place at a later stage[8]. (3) Features of the judgment task or communicative setting may trigger exclusion of potentially relevant information, however. (4) Exclusion can result in a contrast effect for one of two reasons: (a) as in Martin's "reset" hypothesis, exclusion of the contextual material due to correction/subtraction can lead to over-corrections and (b) the information excluded from the target can be included in the representation of the *comparison standard* (Schwarz and Bless 1992a). The former process would lead to contrast when moderate primers are used because the primed concept would seem more congruent with the target and therefore the strength of the perceived bias is greater (Moskowitz and Skurnik 1999)[9]. The latter process would lead to contrast to the extent that the excluded material is more *extreme* than the default comparison standard or the target representation. (5) In agreement with Martin, the emergence of a contrast effect by either of the two exclusion mechanisms requires more processing steps and more cognitive effort than the default inclusion process that produces assimilation (Schwarz and Bless 1992a).

4.6. A "net contextual priming effect"

Levin and Levin (2000) have developed a model of a "net contextual priming effect" that stressed the role of consumer perceived connections (congruity) between a primer and a target. According to this model, ambiguity in the description of a target is resolved by inferences concerning the shared properties of the primer and the target. Both assimilation and contrast are more likely to occur when consumers perceive many shared properties between the primer and the target. First, people try to match individual dimensions of the primer with the target as an assimilative process. Assimilation is the *default* process, which occurs in the *encoding phase* before any comparison process takes place. When the matching dimensions have been assimilated, the next step is to compare the target with the primer on these matching dimensions

[8] A current study shows that contrast affects can occur by "default", and that such contrasts appear to be driven by a comparison process when a pre-developed product-category-standard (norm) is activated by a contextual primer (Raghunathan and Irwin 2001). The study shows that consumers with a well developed "product comparison schema", are able to evaluate products by comparing them to competitive offerings in a relatively automatic fashion. This may produce contrast as a "default" process, which is independent of prior assimilation (Raghunathan and Irwin 2001).

[9] According to Moskowitz and Skurnik (1999), moderate primers are more likely to be seen as having contaminated one's reaction to a target and less likely to be seen as irrelevant to an ambiguous target. The more likely the primer is seen as having contaminated one's reaction to a target, the more one tries to adjust one's initial reaction to correct for the primer's influence, and the more likely one is to remove part of one's genuine reaction.

and this process occurs in the *judgment phase*. When discrepancies in magnitude on the matching and comparison relevant dimensions are uncovered, the target is compared to the primer and a contrast effect is evident[10]. Both assimilation and contrast can operate interchangeably in settings when such inferences are made. The measured overall impact of the contextual primer is termed a "net contextual priming effect", which is a calculative balance between the two competing processes – assimilation and contrast (Levin and Levin 2000). The model implies that the assimilated and contrasted dimensions are summarized to a total priming effect. When most matching dimensions are assimilated, the target is drawn towards the primed construct. Conversely, when most dimensions are contrasted, the target is pushed away from the primed construct.

The model of a "net contextual priming effect" expands on previous contextual priming models by including at least three new aspects: (1) Focusing on assimilation and contrast as continuous, co-acting processes rather than as all-or-none outcomes, (2) Emphasizing the ambiguity of a target brand description as a key determinant of balance between assimilation and contrast effects, (3) Examining the role of congruity in the perception of functional brand attributes as well as of symbolic brand imagery.

4.7. The role of primer characteristics

Contextual primers are only symbolic representations of the construct they activate, and different types of primers may vary in their ability to activate the construct they represent. Characteristics of the contextual primer determine what information is activated and thereby the type and magnitude of the resultant priming effect. Thus, whether assimilation or contrast is produced is dependent in part on the nature of the contextual primer – (1) whether it is an attribute or an exemplar, (2) whether it is extreme or moderate, and (3) whether it is presented verbally or visually.

(1) Trait or exemplar primers: In an advertisement for a new product category, for example a new car, when the product is photographed or filmed against a rich, luscious background

[10] Distinguishing between shared and non-shared attributes follows a long tradition in the psychology of decision-making and choice (Tversky 1972). For example, Markman and Medin (1995) described two kinds of differences that affect the comparison and choice between two items: (1) alignable differences and (2) non-alignable differences. Alignable differences refer to shared attributes that vary in magnitude between two objects. Non-alignable differences refer to unshared attributes between the two objects. Only alignable differences can be compared and contrasted as both objects share these attributes (Levin and Levin 2000). Moreover, only shared attributes that differ in magnitude can be used as comparison standards. Therefore, only alignable differences between a primer and a target can underlie contrast in a standard-of-comparison manner.

(beautiful people, expensive house, a luxurious location) this context may activate abstract product attributes such as "luxurious" and "expensive". Nevertheless, these attributes will be perceived as less comparison-relevant than when a specific prototype that exemplifies the car category provides the background against which the car is presented (e.g., the context of the advertising activates "Rolls Royce" and "Ferrari"). A specific, prototypical exemplar constitutes a distinct and separate entity and is therefore more likely to be used as a comparison standard.[11] An abstract trait concept lacks the distinctiveness to be used as a standard-of-comparison. Hence, product attributes such as "expensive" or "luxurious" are unlikely to be used as relevant comparison standards. When they are relevant to interpretation of a target, however, these attributes may exert their influence during encoding and result in assimilation ("This is an expensive car", "This is a luxurious car").

Applied to the current research, the comparison-relevant argument suggests that, when the task is to evaluate a product on a particular dimension, product attributes may not be similar enough to be used as a relevant comparison standard. As Brown (1953, p. 210) stated: "the anchor, to be effective, must be perceived as a member of the same class of objects as the target". Therefore, product exemplars that belong to the same class of objects as the target product (for automobiles – "Ford Fiesta", "Rolls Royce"), but not product attributes can be used as relevant anchors in product evaluations (Herr 1989; Schul and Ganzach 1995; Stapel and Koomen 1997; Stapel et al. 1997; 1998).

Not only verbal attributes, but also exemplars that belong to a different category than the target (non-target-category exemplar primers) are unlikely to be used as comparison standards. For example, when evaluating an advertised message in which a new restaurant is presented, people are more likely to compare the target restaurant with other target-category exemplars (other familiar restaurants) rather than with non-target-category exemplars (other familiar clothing stores). Clothing stores do not belong to the target restaurant category, and thus lack comparison relevance. Therefore, non-target-category exemplar priming is unlikely to result in contrast as predicted by the standard-of-comparison model. However, because non-target-category exemplars are likely to prime the attribute they exemplify (e.g., "luxurious" or "casual"

[11] Prototypicality is the degree to which an object is representative of a cognitive category and prototypes are usually defined as the central representation of a category or as possessing the average or modal value of the attributes of that category (e.g., Homa 1984; Langlois and Roggman 1990; Rosch 1978). One use of prototypicality refers to subjective perceptions of typicality or category representiveness (Barsalou 1985; Rosch 1975). Prototypes of a category work as anchors against which other items are compared and contrasted. The term "domain match" is another label that is commonly used to describe this concept (Raghunathan and Irwin 2001), and high domain match implies that the primer belongs to the same domain (or cognitive category) as the target. The two entities possess analogue attributes and features that can be compared and contrasted on an attribute-by-attribute basis.

clothing store), they may still activate information that can be assimilated, but only when it is relevant for interpretation of the target.

(2) Primer extremity: Research shows that primer extremity impacts the direction and magnitude of contextual priming effects (Herr, Sherman and Fazio 1983). If specific exemplars of a target judgment category are at hand, people will use these exemplars as standards-of-comparisons in a feature matching process. The standard-of-comparison model predicts that target-category exemplar primers produce greater contrast when they are extreme and distinct than when they are non-extreme and indistinct (Stapel and Koomen 1997; 1998). If an extreme exemplar is accessible in memory, the target being judged against this standard will seem less extreme for the quality in question, resulting in contrast. In one study, Stapel et al. (1996) found that the narrower, the more extreme and the more distinctive a primed category is in relation to a target, the more likely contrast, as a standard-of-comparison process will occur[12]. When a primer exemplar is highly comparison relevant and the matching dimensions differ in extremity, the difference in magnitude of the matching dimensions makes it easier to evaluate the target as better than the primer or worse. The more extreme the primer is on the matching dimensions the stronger the contrast effect (Stapel et al. 1997; Stapel and Koomen 1997; 1998; Moskowitz and Skurnik 1999).

(3) Verbal or visual primers: Primer characteristics are also a matter of whether the primer is portrayed verbally or visually. An example that may serve to clarify this is the priming of a U.S. cowboy. It is apparent that it makes a difference if the cue used to prime the archetype U.S. cowboy is a verbal personality trait like "rugged" or alternatively a visual exemplar of Clint Eastwood. The latter type of exemplar primer will presumably activate a richer set of associations and produce more inferences (e.g., Mitchell and Olson 1981) that can impact the pattern of the resulting priming effects. A picture of Clint Eastwood will evoke more associations than the word "rugged", but also more compared to the simple spelling of the name, Clint Eastwood.

To date research has focused almost entirely on *words* and other verbal materials, and even the few studies that have examined the priming of *nonverbal* information included a

[12] Herr, Sherman and Fazio (1983) conducted an experiment showing that ambiguous target stimuli were judged as instances of a primed category (assimilation) only when that category was moderately extreme. When primed with exemplars of extreme categories, stimuli were judged in the opposite direction from the primed category (contrast). For example, following priming with exemplars of either extremely hostile persons, extremely ferocious animals, or extremely large animals, subjects subsequently judged the stimuli as relatively non-hostile, un-ferocious, or small.

significant verbal component (see Schacter, Delaney and Merikle 1990, for a review). Priming has been applied in advertising (Yi 1990a; 1990b; 1993), but despite the largely visual nature of most advertising, this research has focused exclusively on the priming of verbal information, namely, the priming of product attributes described in wording in a print advertisement. Although Yi's research provides compelling evidence for effects of verbal priming, most processes that advertisers and brand builders deal with are visually driven (Percy and Rossiter 1983). It seems reasonable that an exemplar primer will activate richer perceptions and stimulate more inferences when it is presented visually than when it is presented verbally (see e.g., Mitchell and Olson 1981; Kisielius and Sternthal 1984; Dickson et al. 1986). A glossy picture of a stylized Mercedes Benz will presumably activate more perceptions and emotions than the word "Mercedes Benz".

It is believed that when visual exemplar primers are used, the richer set of activated perceptions can impact the perceived level of congruity, the perceived level of comparison relevance and the perceived level of extremity between a primer and a target brand. If this is the case their visual nature may impact the experimental manipulations and thereby whether assimilation or contrast is produced. Therefore, it is important that research focus not only on verbal priming but also on visual priming. To address these shortcomings in existing priming research the present thesis only applies visual exemplar primers to test whether visual exemplars produce different priming effects than what have been observed previously for verbal exemplars.[13]

4.8. The role of consumer knowledge

It seems reasonable that consumer judgments might be differentially influenced by priming as a function of an individual's prior knowledge about the primed construct, as well as, about the product category of the target brand. After all, priming effects should depend ultimately upon the existence of a primed stereotype category and a target brand (product) category stored within memory (e.g., Herr 1989; Wänke et al. 1998; Mandel and Johnson 2002). Product knowledge can be operationally defined either in terms of what is actually stored in memory (objective knowledge) or in terms of what individuals perceive that they know (subjective knowledge;

[13] Nonverbal stimuli have been employed in only two priming studies in consumer research (Herr 1989, experiment 2; Meyers-Levy 1989, experiment 1). In his study of priming price, Herr (1989) asked subjects to examine two print ads rather than rate the name of an automobile in order to increase ecological validity. Meyers-Levy (1989) asked subjects to perform two categorization tasks and presented products (furniture and vehicles) in either picture or word form.

Brucks 1985)[14]. The former is used as a primary measure in the present study, because contextual priming deals with knowledge structures stored in memory. Herein consumer knowledge should vary both on a primer stimulus level and on a target stimulus level.

A rich literature on expertise in consumer research generally predicts that non-experts are more prone to be influenced by contextual variables than experts (Bettman and Sujan 1987; Bikart 1993). However, in one study Herr (1989) found that experts were more influenced by contextual priming than novices. In a later study Mandel and Johnson (2002) argued that experts are more likely than novices to operate on memory based evaluations, so they may have more information consistent with a prime available for judgmental and choice. Consistent with this notion, Chapman and Johnson (1999) have shown that making more information available can increase the effects of comparison anchors, which they argue operate through a priming mechanism. These are two opposing theoretical arguments of how consumer knowledge can moderate contextual priming effects, which is discussed further in chapter 8.

The prior knowledge variable is particularly believed to stimulate consumers' ability to see matches, but also mismatches between a primer and a target object (e.g., Muthukrishnan and Weitz 1991; Wänke et al. 1998). It is found that more matches produce stronger assimilation and more mismatches produce weaker assimilation (e.g., Bettman and Sujan 1987; Bikart 1993; however, see Herr, 1989 for opposite results)[15]. The moderating impact of product category knowledge is examined in Experiment 2.

[14] What people perceive they know is likely to depend on whet they actually know and their self-confidence in the amount of knowledge held in memory (Park and Lessig 1981; Rao and Monroe 1988).

[15] It is often assumed that experts are more confident in their judgments and thus less susceptible to contextual cues. Drawing on differences in the amount of chronically accessible information and different cognitive processes, it is predicted that smaller context effects are predicted for experts than for non-experts experts (Bettman and Sujan 1987; Bikart 1993). Compared to non-experts, experts characteristically possess a rich and well-organized knowledge structure in a given domain (see Alba and Hutchinston 1987). Because they have a relatively large amount of relevant information chronically accessible, the impact of additional information that is rendered temporarily accessible by the immediate context should be relatively weak. For non-experts on the other hand, only a small amount of information is chronically accessible. Accordingly, the representation that they form of the target is likely to be dominated by the temporarily accessible information, resulting in pronounced priming effects.

4.9. Study implications

This chapter has shown that priming can be used as a method to evoke country stereotypes, which can impact associations of target brands. According to the standard-of-comparison model of priming effects (e.g., Stapel et al. 1997; 1998; Stapel and Koomen 1997; 1998) priming can produce assimilation or contrast and thereby impact inferences made about a target brand. However, to have an influence the primed information must be "congruent" with (match) the target brand. Only primed information that in some sense is congruent with the target brand will influence how it is perceived and later evaluated. Herein, the degree of match between a primer and a target brand is termed *primer-target congruity*. To produce contrast in a standard-of-comparison manner, the primers must be exemplars of the same category as the target brand. Only such primers are sufficiently "comparison relevant" to produce contrast of this kind. Herein, the relevance to compare a primer with a target is termed *primer-target comparison relevance*. Other types of primers can just produce assimilation or contrast by correction. Finally, to leave room for individual interpretations, a target brand must be described ambiguously (vaguely specified, leaving room for interpretation) or the consumers must be ignorant (novices) about its inherent qualities.

To date, the consumer behavior literature has primarily focused on assimilation or absence of assimilation as the alternative outcome of contextual priming. This focus on the presence or absence of assimilation effects is surprising as empirical findings suggesting that priming in advertising or in brand extensions also can result in both positive and negative contrast effects (e.g., Romeo 1991; Boush and Loken 1991). In spite of the current focus on assimilation effects, it is from the contrast effect studies that several new theoretical points arise. To address the lack of studies on contrast effects the next study principally focuses on whether assimilation or contrast is produced as predicted by the standard-of-comparison model. Characteristics of the primed stereotype determine the resulting priming effects. Moreover, characteristics of the primers used to evoke the stereotype are potential determinants of the resulting priming effects: (1) whether they are target-category or non-target category exemplars, (2) whether they are extreme or non-extreme and (3) whether they are presented visually or verbally. In the next experiment, visual exemplar primers are designed to trigger assimilative or standard-of-comparison processes.

CHAPTER 5

MODEL AND HYPOTHESES FOR THE PILOT STUDY AND FOR EXPERIMENT 1

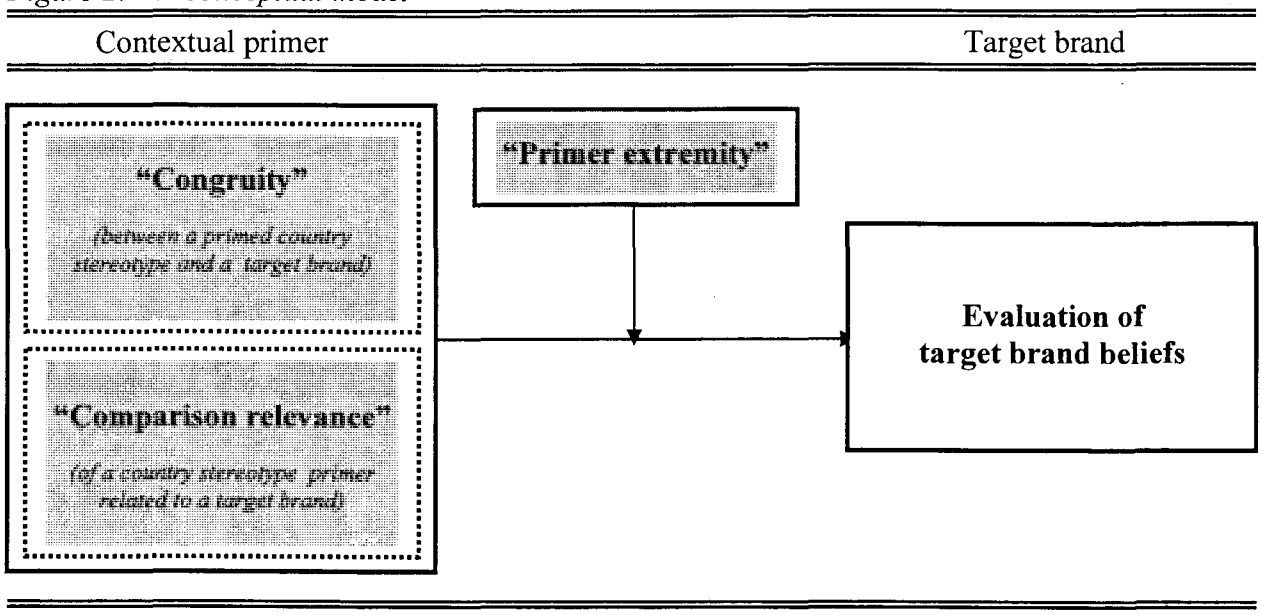
5.1. Chapter introduction

In this chapter a conceptual model is delineated that addresses whether a primed country stereotype impacts cognitive evaluations of target brands with a pattern of priming effects as predicted by the standard-of-comparison model. It is expected that varying levels of primer-target congruity and primer-target comparison relevance are important antecedents of this pattern of priming effects. It is also expected that the level of primer-target extremity impacts the resulting effects. Chapter 5 is organized as follows. First, a conceptual model is outlined and then some hypotheses are expressed based on the conceptual model and on the literature review.

5.2. A conceptual model

In Figure 2, a conceptual model is outlined based on the principles of the standard-of-comparison model of priming effects. The conceptual model incorporates target brand beliefs as the dependent variable, which is thought to reflect the concept of brand personality. The model, moreover, incorporates three independent variables identified as antecedents of contextual priming effects in earlier studies. These are (1) "primer-target congruity" (Stapel and Koomen 1997), (2) "primer-target comparison relevance" (e.g., Stapel et al. 1998) and (3) primer-target extremity (e.g., Herr et al. 1993; Stapel et al. 1998).

Figure 2: A conceptual model



5.2.1. The principal components of the conceptual model

The conceptual model is based on the view that contextual priming effects are produced in two stages, which are commonly acknowledged as phases in evaluations of target objects. The first is, (1) the encoding phase when the primed information is used to interpret the target, and the second is (2) the judgment phases when the target is subjected to comparisons against the primed information (Martin 1986; Martin et al. 1990). The basic predictions of the conceptual model are that assimilation occurs in the encoding phase when consumers use primed information to make inferences about a target. Consumers conduct an unconscious "feature matching process" (Herr 1986; Meyers-Levy and Sternthal 1992) and assimilation is produced when respondents identify matching features between a primer and target. The level of *congruity* between a primer and a target determines how strong the assimilation effect is as a positive function. In the judgment phase, consumers compare and contrast the matching features they have identified (Meyers-Levy and Sternthal 1993; Meyers-Levy and Tybout 1997). Primers that are highly *comparison relevant* produce stronger contrast effects when they differ in *extremity* on the matching dimensions.

The model proposes that the level of congruity between a country stereotype primer and a target brand determine whether primed country stereotype beliefs is assimilated to the target brand (Herr 1986; Herr 1989; Meyers-Levy and Sternthal 1992). If beliefs are assimilated, the activated country stereotype beliefs merge into the cognitive schema of the target brand and modify its brand personality. The model also proposes that contrast can be produced due to standard-of-comparison judgments. This type of contrast is expected when the primer is prototype enough to serve as a comparison anchor against which the target is compared and contrasted (e.g., Stapel and Koomen 1997; Stapen el al. 1997). When this type of contrast is produced target brand beliefs are impacted negatively. It is found that the level of primer extremity influences the magnitude of the resulting contrast effects (e.g., Herr 1986; Herr 1989). Before hypotheses that are more specific are outlined, the choice of dependent and independent variables requires some further consideration.

5.2.2. Dependent variables

The conceptual model incorporates *target brand beliefs* as the dependent variable because brand personality beliefs are essential components of the brand personality concept (see e.g., Batra et al. 1996). It is also current practice to measure changes in beliefs about a target brought about by

a primer. Most priming studies measure assimilation effects as changes in beliefs about a target caused by primed information (e.g., Allen and Janiszewski 1989; Herr 1989; Schumann and Thorson 1990; Shimp, Stuart and Engel 1991; Mathur and Chattopadhyay 1991; Meyers-Levy and Sternthal 1993). In consumer research, the current practice is that when product attributes are primed the priming effects are measured as changes in beliefs about target product attributes (e.g., Meyers-Levy and Sternthal 1993; Yi 1990a; 1990b; 1993; Boush 1993; Pryor and Brodie 1998; Meyers-Levy and Tybot 1997; Levin and Levin 2000; Stapel et al. 1998; Wänke et al. 1998). Based on these findings it seems conceivable that information evoked by a primed country stereotype can impact beliefs about a target brand.

5.2.3. Manipulated variables

(1) Primer-target congruity: Assimilation is believed to increase in magnitude with increasing primer-target congruity (e.g., Myers-Levy and Sternhal 1992; Herr 1986; Herr, Sherman and Fazio 1983; Srull and Wyer 1979; 1980; Higgins 1996). Congruity can be defined by many different shared properties, such as product categories or image concepts, making congruity a fuzzy concept (Wänke, Bless and Schwarz 1998). Nonetheless, congruity has been a key explanatory factor of brand evaluations in several streams of research such as brand extensions (e.g., Aaker and Keller 1990; Smith and Park 1992), ad endorsers (e.g., Baaker and Churchill 1977; Petty and Cacioppo 1986) and brand alliances (Levin and Levin 2000).[16]

In this study the question of congruity is not a matter of how two brands from two different product categories match each other. It is rather a question of how two entirely different cognitive categories, a primed country stereotype and a target brand, match on some symbolic features. Recent research has shown that when consumers are exposed to contextual primers they are sometimes able to identify some resemblance between two very dissimilar entities such as a country stereotype and a target brand (see e.g., Lane 2000). Herr, Farquahar and Fazio (1996) have proposed that the broader concept of inter-category relatedness, just like congruity, is a prerequisite for assimilation effects. The term *inter-category relatedness* is best illustrated by an advertisement for a brand, where linkages between the brand, the ad setting, and the ad characters somehow "make sense". Consumers are able to link the various ad components to a broader cognitive category. For example, certain brand symbols i.e. packaging, logo, color, or

[16] To date many facets of congruity, not necessarily based on overlapping physical attributes, have been identified. These range from: 1) *product category similarity* (Keller and Aaker 1992; Dacin and Smith 1994), 2) *symbolic product complementarities* (Lowrey et al. 2000), 3) *overall similarity* (Levy and Tybout 1997; Schwarz and Bless 1992), 4) *unity* (Lauer 1979; Veryzer 1993a, 1993b) and 5) *inter-category relatedness* (Herr, Farquahar and Fazio 1996; Wänke, Bless and Schwarz 1998).

mascot, can depict a relatively superficial basis of relatedness between branded products (Lane 2000). The term inter-category relatedness includes variables such as equivalent design or style, equivalent functional benefits, same users, parallel usage situations, equivalent manufacturing processes, or shared distribution channels. Thus, this term is understood as a general resemblance between a primer and a target that enables consumers to see matches between them. However, high resemblance between two very dissimilar categories is only expected to be a superficial type of fit (Lane 2000).

If a brand in some sense is congruent with a primed country stereotype, the dimensions defining the country stereotype category are assimilated to the target brand (see discussion in Chapter 3, Section 3.5, p. 27). Then the target brand receives the beliefs evoked by the county stereotype primer (Fiske 1982). However, primed information is not always incorporated into subsequent judgments. When incongruent information is made accessible, it may produce no change in subsequent judgments (Devine 1989). According to the inclusion-exclusion model (Schwarz and Bless 1992a), primed information, which is clearly irrelevant to a judgment task, is ignored and does not influence judgments of a target. Thus, low congruity causes no assimilation of beliefs and the inclusion-exclusion model describes this as an "early exit" (Schwarz and Bless 1992a).

(2) Primer-target comparison relevance: Primed information may produce contrast effects rather than assimilation and these occur when the primer is highly relevant in comparison with the target (Herr 1986; Herr et al. 1983; Martin 1986). In a series of recent experiments, it has been found that contrast only occurs when primed information is used as a standard-of-comparison anchor. Several variables have been shown to underlie the conditions for contrast caused by comparison processes. Among them are: (1) type of primer used - such as traits or exemplars (e.g., Herr 1986; Herr et al. 1989; Stapel and Koomen 1997) (2) primer prototypicality (Herr 1986), and (3) primer extremity (Herr 1986; 1989). Stapel and Koomen (1997) argue that the type of primer used determines whether contrast by comparison will be produced. Stapel et al. (1997) state that contrast cannot be produced by primed attribute constructs (words such as luxurious and prestige) or by non-target-category exemplar primers (see discussion in Chapter 4, Section 4.7, p. 41).[17] It is only target-category exemplar primers that are enough of a prototype

[17] Abstract trait or attribute primes can only produce contrast through exhausting correction processes. For contrast as a correction process to occur, there should be high awareness of a biasing influence, as well as superior individual ability and motivation to elaborate on the primed information. Therefore, trait primes only result in contrast when respondents are highly aware of primers, and possess sufficient cognitive resources to carry out the laborious elaboration of "subtracting out" the influence of the primer from the judgment. The same logic is sound for "non-target category exemplar primers".

and, thus, sufficiently comparison relevant to produce comparative judgments leading to contrast (Stapel at al. 1996; 1997).[18] Such exemplar primers are used as standard-of-comparison anchors that stimulate contrastive comparison processes (Brown 1953; Stapel and Koomen 1997).

Stapel et al. (1997) do not define the theoretical rationale for making a clear distinction between the term primer-target congruity and the term primer-target comparison relevance. They simply state that congruity is a matter of interpretation applicability and that primer-target comparison relevance is a matter of the relevance to compare a target with primed information. Herein, a more precise conceptualization of the distinctions between these two concepts is delineated. As defined in this study, a distinction is made between these variables with primer-target congruity related to the broader concept of inter-category relatedness (Lane 2000) and primer-target comparison relevance emerging from the concept of prototypicality (Rosch 1978; Homa 1984; Langlois and Roggman 1990).

(3) Primer-target extremity: Research shows that primer extremity affects the magnitude of contextual priming effects (Herr, Sherman and Fazio 1983). An example can serve to illustrate the role of primer extremity. For instance in the case of automobiles, if a Mercedes Benz was primed before subjects evaluated a BMW it is unlikely that a contrast effect would occur as the primer and the target would be equally strong on the matching attributes and features. However, if a Mercedes Benz was primed before subjects evaluated a Fiat it is more likely that comparison process could result in contrast. Therefore, when primed product exemplars are extreme, they may provide an extreme enough standard for comparison judgment processes to result in contrast. However, when primed product exemplars are only moderately extreme, it is more likely that the contrastive judgment effects are not strong enough to predominate the assimilative encoding effects (see Biernat et al. 1991, Staple, Koomen and Van Der Pligt 1997).

On accordance with this viewpoint, Herr et al. (1983) conducted an experiment in which they showed that ambiguous target stimuli were judged as instances of a primed category (assimilation) only when that category was moderately extreme. When primed with exemplars of

[18] Research on contextual priming effects mainly addresses "carry over" effects of primed traits (e.g., Bargh and Pietromonoc 1982; Stapel et al. 1996; 1997), product attributes (e.g., Stapel et al. 1998; Wänke et al 1998), exemplar persons (e.g., Stapel et al. 1997; 1998), or exemplar icons (e.g., Stapel and Koomen 1997; Stapel et al. 1997) to a target person or object. Such classical priming studies show assimilative processes where an activated trait concept (hostility) mainly serves as an interpretation frame and impacts description of an ambiguously described person (e.g., hostile/friendly Donald; see Herr, Sherman and Fazio 1983; Herr 1986; Phillipot et al. 1991; Wyer and Srull 1989). In a similar vein, a primed exemplar of a well-known person (Hitler/Mother Theresa) may serve to categorize an ambiguously described person because it activates a categorical dimension (hostile/friendly). In this situation, the exemplar primer not only matches the target, it is also relevant to compare the primer with the target as they belong to the same cognitive category (Hitler/Mother Theresa versus an ambiguously described person). It is therefore likely that the primed exemplar will be used as a standard-of-comparison anchor against which the evaluation of the ambiguous person is contrasted. The outcome of the comparison process is that the ambiguously described person is evaluated as less friendly than Mother Theresa is and less hostile than Hitler.

extreme categories, stimuli were judged in the opposite direction from the primed category (contrast). In one study, Stapel et al. (1996) found that the more extreme a primed category is in relation to a target, the more likely contrast as a standard-of-comparison would occur. Stapel's rationale for this is that an extreme primer activates more discrete information, and this information is more likely to be used as a contrastive standard-of-comparison anchor. Activated information from extreme primers is therefore more easily contrasted. On the other hand, moderate and indistinct primers do not provide judges with a clear and specific anchor point. Instead, such primers produce assimilation. Herein, primer extremity is expected to moderate the size of the proposed priming effects. When a country stereotype primer is congruent but not comparison relevant in relation to a target brand, a moderate primer is expected to produce stronger assimilation. Conversely, when a country stereotype primer is both congruent and comparison relevant in relation to a target brand, an extreme primer is expected to produce stronger contrast. From this discussion of priming effects as predicted by the standard-of-comparison model (Stapel and Koomen 1997; Stapel et al. 1998) some hypotheses are now formulated.

5.3. Research hypotheses

(1) Primer-target congruity: This is the first independent variable, which is expected to determine whether assimilation occurs in the encoding phase as the level of *match* between the primed country stereotype and the target brand increases (Stapel and Koomen 1997). A review of the priming literature by Higgins (1996) clearly established that primed information only exerts effects on subsequent judgments when it, in some sense, is congruent with a target stimulus (see also Feldman and Lynch 1988; Higgins and Brendl 1995). The greater the match between the features of a primed construct and the attended features of a target, the greater the relatedness of the primer to the target, and the larger size of the initial assimilation effects (e.g., Stapel et al. 1996; Myers-Levy and Sternhal 1993; Herr 1986; Herr et al. 1983; Herr et al. 1996; Srull and Wyer 1979; 1980).

If the primed country stereotype is highly congruent with the target brand, the primed information matches the target brand on several dimensions. In such situations, the activated information is assimilated into the target brand's cognitive schema, and this is regarded as the "default" assimilation process. When assimilation occurs, the beliefs of the primed country stereotype perceptions are integrated into the cognitive schema of the target brand and these adjust the prior brand beliefs. If the primed information is low in congruity with the target brand,

a type of initial contrast effect is produced, which is referred to as an "early exit" (Martin 1986). The activated information is seen as irrelevant and neither is assimilated nor later contrasted away from the target brand. It is therefore hypothesized that the primer-target congruity variable impacts a target brand by producing assimilation in relation to a congruent target brand, and a null-effect in relation to an incongruent target brand. In the congruent situation, an unconscious process of feature matching leads to assimilation of the activated country stereotype beliefs to the target brand. This has a positive impact on brand evaluations and on ratings of brand personality beliefs. In the incongruent situation, the primed information is not expected to influence the target brand. Hence:

H1: There is a positive relationship between the level of primer-target congruity and the effect of a primed country stereotype on target brand beliefs.

(2) Primer-target comparison relevance: This is the second independent variable, which is expected to determine whether contrast occurs in the judgment phase as a standard-of-comparison effect. This variable refers to the potential a primer may have to work as a comparison standard and it implies that contrast could happen when a primer is used as a scale anchor (e.g., Brown, 1953; Stapel, Koomen and Velthuijsen 1998). In such situations, the initial assimilation effect is overruled by a later contrast effect. The primed information is contrasted away from the target brand as a reverse assimilation effect, which may even "rip off" the original target brand beliefs. These contrast effects occur primarily through a process of comparison of the target with the primed information, rather than by a process of subtraction (Schwarz and Bless 1992) or exclusion (Martin 1986).

According to the standard-of-comparison model (Stapel and Koomen 1997; Stapel et al. 1998), the standard-of-comparison type of contrast effect is produced only in situations with both high primer-target congruity and high primer-target comparison relevance. In such conditions the stereotype beliefs are first assimilated then can later be contrasted away from the target brand. When this happens less country stereotype beliefs are "carried over" (Bargh and Pietromonoc 1982) to the target brand. On the other hand, in conditions with high congruity and low comparison relevance, more country stereotype beliefs are initially assimilated, but these are not subsequently contrasted. Therefore, more beliefs are "carried over" to the target brand. When a primer and a target brand belong to the same cognitive category, this more readily invite standard-of-comparison processes, which could generate contrast in the later phase of brand judgments (Brown 1953). As discussed earlier (see Chapter 4, Section 4.7, p. 42), the standard-

of-comparison model hypothesizes that only a "target-category exemplar primer" is sufficiently prototypical to be used as a comparison standard that can be compared and contrasted. Therefore, only "target-category exemplar primers" are sufficiently comparison relevant to produce contrast by comparison (Stapel and Koomen 1997).

"Non-target-category exemplar primers", such as a different product class or a person, cannot produce contrast in a standard-of-comparison manner. Such contextual primers lack sufficient comparison relevance to produce this type of contrast effect (Stapel and Koomen 1997). A "non-target-category exemplar primer" is not sufficiently prototypical to produce anything other than an initial assimilation effect. Although there may be high congruity between a primer and a target from two different cognitive categories, it is difficult to compare them on an attribute-by-attribute basis[19]. Accordingly, the standard-of-comparison process does not take place in the judgment phase for such primers and the primed stereotype information is assimilated to the target brand. Hence:

H2: *For a congruent target brand, a country stereotype primer low in comparison relevance produces a more positive impact on target brand beliefs than a primer high in comparison relevance.*

(3) Primer-target extremity: The third independent variable is thought to moderate the strength of the effect of the previously defined hypotheses. This variable refers to the degree of extremity on the matching dimensions identified between a primer and a target. The case of watches can serve to illustrate the role of primer-target extremity. It is likely that both Rolex and Timex may match each other on the personality trait "sophisticated". However, Rolex is a more extreme exemplar of this personality trait than Timex. If a Rolex (a more sophisticated watch) was primed in relation to a Timex the latter would most probably be judged as less sophisticated. However, if Swatch (a less sophisticated watch) was primed, the Timex watch would be perceived as more sophisticated.

An extreme primer activates more discrete information, which is more likely to be contrasted either because it is excluded from the target category as an "early exit" when matching features are not identified (Martin 1986) or due to comparative judgments (Stapel and

[19] According to Stapel et al. (1998), priming of target category exemplars activates information that has comparison relevance. Therefore, this information is especially likely to be used as a comparison standard to which target evaluations can be contrasted. Priming non-target category exemplars will result in assimilation when these exemplars activate information that can be used to form an interpretation of the target stimulus. Non-target category exemplars cannot be used as comparison standards because they lack comparison relevance (Stapel and Koomen 1997;1998;Stapel et al. 1997; 1998).

Koomen 1997; 1998)[20]. A non-extreme primer is seen as sharing relatively more features with an ambiguous target brand located at the same semantic dimension than an extreme primer, which is more likely to be perceived as occupying a separate and distinct category (Moskowitz and Skurnik 1999).

The standard-of-comparison model predicts that comparison relevant primers (target-category exemplar primers) produce greater contrast when they are extreme than when they are moderate (Stapel and Koomen 1997; 1998). When a primer is highly comparison relevant it is likely that the matching features are used as "scale anchors" against which the target is compared. When the matching features differ in extremity between the primer and the target, the difference in magnitude makes it easier to evaluate the target as better as or worse than the primer. The more extreme the matching features are the stronger is the standard-of-comparison contrast effect (Stapel, Koomen and Van der Pligt 1997; Moskowitz and Skurnik 1999). It is therefore hypothesized that the contrast effect produced by standard-of-comparison processes increases as a country stereotype primer increases in extremity relative to a target brand (Stapel, Koomen and Van der Pligt 1997; Moskowitz and Skurnik 1999). The more extreme the primer is the stronger is the contrast effect.

On the other hand, Stapel et al. (1997) argued that non-extreme and indistinct primers share more features with target objects and are therefore perceived as more congruent, which may result in increased assimilation (Stapel, Koomen and Van der Pligt 1997). Non-extreme primers do not provide judges with a clear and specific anchor point against which the target can be compared and contrasted. Therefore, it is argued that non-extreme country stereotype primers, which are congruent but not comparison relevant with a target brand, have a stronger assimilative impact on target brand beliefs. Consequently, the default assimilation process should be stronger as a primer decreases in extremity relative to a target (Stapel, Koomen and Van der Pligt 1997; Moskowitz and Skurnik 1999). The more non-extreme the primer is the stronger is the assimilation effect. Hence:

H3: The size of the assimilation effect is larger for a non-extreme primer than for an extreme primer.

[20] Non-extreme primers are seen as sharing relatively more features with ambiguous target brands located at the same semantic dimension than extreme primers, which are more likely to be perceived as occupying separate and distinct categories (Moskowitz and Skurnik 1999).

CHAPTER 6

PILOT STUDY

6.1. Chapter introduction

To test the hypothesized relationships outlined in Chapter 5, gathering of some primary data is required. The hypotheses were expressed in a causal style and this placed a set of demands on the research design that was a sequence of laboratory experiments (Cook and Campbell 1979; Churchill and Iacobucci 2002). In this chapter an introductory pilot study is presented, which was conducted to develop efficient experimental stimuli for the two subsequent experiments. In Chapter 5 hypotheses were developed with clear causal relations, which could be tested without a pilot study. However, in this thesis the outlined hypotheses will be tested in a new marketing setting. Moreover, visual exemplar primers will be used as opposed to verbal primers, which were mostly applied in previous studies. Therefore, it was considered necessary to run a pilot study to generate practical primer stimuli and target brand stimuli to be used in these particular experiments (see McGrath and Brinberg 1983 for a discussion of the research process). The pilot study was also conducted to obtain more knowledge about the number of subjects required to obtain sufficient statistical power to test the delineated hypotheses. The pilot study is outlined in the present chapter and it is organized as follows: First various aspects of the methodology are outlined. Then the descriptive statistic is presented and the correlations between the main experimental variables are delineated. Thereafter, the tests of assumptions are reported and results of the manipulation checks of primer effectiveness are outlined. Finally, the findings are discussed, the weaknesses of the design are addressed and implications for the two next studies are outlined.

6.2. Design

In order to test the hypotheses delineated in the preceding chapter an experimental design was chosen. The pilot study used frequently applied procedures adapted from classical priming studies (e.g., Herr 1986; 1989; Stapel et al. 1997; 1998). A typical priming study in consumer research is divided into two parts: a priming task and a judgment task. In the priming task respondents are exposed to information related to a product attribute such that the attribute is made accessible in memory. After the priming task, an apparently separate judgment task occurs, where participants learn about and report their interpretations and evaluations of a target product. This procedure was used in the present pilot study.

The present study was exploratory in the sense that brands and not people were used as targets and country stereotypes not social stereotypes were primed. The dependent measure of overall target brand evaluations was target brand personality beliefs. After exposure to various primers, subjects were asked to indicate their reactions to some advertised target brands. Various types of primers were utilized to evoke different country stereotypes. The level of congruity and the level of comparison relevance between the country stereotype primers and the target brands were expected to determine the resulting priming effects. Data were gathered through a questionnaire handed out to student respondents. The priming task was administered as a pre-exposed photo, which respondents evaluated before they were given an ad with the target brand introduced. Thereafter, the target brand was evaluated on a set of established scales utilized to uncover possible effects of the manipulated variables. A detailed description of the study design is outlined below.

6.3. Selection of experimental variables

In the pilot study, two experiments were completed for two different country stereotypes, in which two contextual primers and two target brands were used in each test. Each experiment used a 2 x 2 reduced factorial between-subjects design with two factors: (1) *primer-target congruity* (match/mismatch between the primed country stereotype and the target brand) and (2) *primer-target comparison relevance* (relevance to compare the primer with the target brand). In the present experiments, the low congruity and high comparison relevance condition is not included. This condition is thinkable, but it is not necessary, as the outlined hypotheses do not address it. The first variable was manipulated by selecting two fictitious target brands, both either high or low in congruent with the two country stereotypes of "US western lifestyle" and "US urban lifestyle". The second variable was manipulated by selecting two types of visual exemplar primers, these being a visual product exemplar and a visual person exemplar, respectively. The product primers were chosen to be highly congruent and highly comparison relevant with one of the two target brands (mountain boots and trousers). The person exemplar primer was chosen to be congruent but not comparison relevant to one of these target brands.

6.3.1. Stimulus primers

The choice of primer was critical as the information this activates entices consumers to reflect on how it matches the target brand. Two well-known fashion brands were included as representations of the two country stereotypes. These were "Marlboro Classics" and "Donna Karan New York" (DKNY). The Marlboro Classics brand was used to evoke the country stereotypes of "US western lifestyle". The brand "Donna Karan New York" was used to evoke "US urban lifestyle of New York". Both primer brands were depicted as visual product exemplars (Marlboro Classics cowboy boots and DKNY trousers) and as visual people exemplars (photos of typical users of Marlboro Classics and DKNY). In Norway, where the study was conducted, the Marlboro Classics brand is profiled as an exclusive fashion brand of casual clothing. The brand personality is built on stereotyped beliefs of an American cowboy and the brand evokes associations of masculinity and ruggedness. The brand profile and the brand origin stem from "the Marlboro Man in Marlboro Country" strategy. The DKNY brand is profiled as an exclusive brand of cosmetics and of casual clothing. DKNY is profiled more as a female brand for younger, urban individuals. The female character is explicitly formulated in the brand name - Donna Karan, and the brand origin is explicitly formulated in - New York.

Pictures of Marlboro Classics cowboy boots and DKNY trousers were chosen to manipulate the level of congruity and the level of comparison relevance of the eight primer-target relationships. Each primer was portrayed as a glossy picture of the prototypical Marlboro Classics boots/DKNY trousers or as a photo of the brand users of Marlboro Classics/DKNY. To make the primers more notable, respondents were told to evaluate the primers as the extent to which they portrayed "US western lifestyle" and "US urban lifestyle", respectively. Prior to the experiment, the contextual primers were subjected to two pre-tests in order to assess the degree to which they evoked the same country stereotypes of "US western lifestyle" and "US urban lifestyle". The result of the pretest for Marlboro Classics (product/person) was [$F = .64$, $p = .43$] and the result of the pretest for DKNY (product/person) was [$F = 1.60$, $p = .21$][21]. The visual exemplar primers are shown in Appendix V.

[21] The pre-tests were run by combining the two groups who were exposed to the product exemplar primers and the two groups exposed to the person exemplar primers, for both the "US Western lifestyle" stereotype (Marlboro Classics) and for the "US Urban lifestyle" stereotype (DKNY). The respondents participated in the main experiment, as the pre-test was a part of the priming task. Univariate ANOVAs were run to test the pair-wise mean differences between these four groups in evaluations of how well the product and the person primers represented each the two country stereotypes. Three items, which were developed based on the congruity measures used in the main experiments (see Table 4 in Appendix II) were utilized to measure how well the product and the person primers represented the two country stereotypes. These were: "Please indicate the degree to which primer X *fits well* with country stereotype Y", "Primer X has *many similarities* with country stereotype Y", and "Please indicate the degree to which primer X *matches* country stereotype Y".

6.3.2. Target brands

Because this study examines contextual priming effects, several requirements were considered in choosing the product categories of the target brands. First, subjects should have some *interest* in the product so that they would process the information about the target brand. Second, the products should have many *interrelated attributes* so that several interpretations are possible from a piece of primed information. Finally, the target brands should be presented *ambiguously* to leave room for idiosyncratic interpretations. To avoid existing brand familiarity to interact with the experimental manipulation and intrude on the studied priming effects, fictitious target brands were chosen. The product categories were selected on the criteria of being similar or dissimilar to the prototype product categories of the primer brands. Based on these considerations, the two product categories of mountain boots and trousers were selected as the focal products. Student respondents were likely to be interested in using these types of products to signal individual lifestyle preferences.

The ads presenting the target brands contained photos of the two target product categories. The non-existing brand name "CDF" was attached to the category label of the two product categories as follows: (a) "CDF Mountain Boots" and (b) "CDF Trousers". Ambiguity of the target brands was manipulated by limiting the information of target brand attributes presented in the ads. The target brands were presented as visual exemplars of boots and trousers with no other information given about brand attributes. Only photos of "CDF Mountain Boots" and "CDF Trousers" were illustrated.

The primed country stereotypes were re-exposed and thereby reinforced in the ads, which included the following slogans: "CDF Mountain Boots - a product of a western lifestyle" and "CDF Trousers - a product of an urban lifestyle". Four versions of ads were developed and they were manipulated to contain either primer-target congruent or incongruent slogans. Examples of target congruent slogans were "CDF Mountain Boots - a product of a western lifestyle" and "CDF Trousers – a product of an urban lifestyle". Examples of target incongruent slogans were "CDF Trousers - a product of a western lifestyle", and CDF Mountain Boots – a product of an urban lifestyle". A total of 4 ads, with different combinations of target products and slogans, were employed. The researcher designed both the primer stimuli and the target brands by applying pictures of relevant brands and product categories from the Internet. The experimental manipulations are illustrated in Table 2.

Table 2: Relations between four contextual primers and two target brands

	MARLBORO	
Contextual primers	CDF Mountain Boots	CDF Trousers
Marlboro Classics boots	*high congruity/ high comparison relevance*	*low congruity/ low comparison relevance*
Marlboro Classics people	*high congruity/ low comparison relevance*	*low congruity/ low comparison relevance*
	DKNY	
Contextual primers	CDF Trousers	CDF Mountain Boots
DKNY trousers	*high congruity/ high comparison relevance*	*low congruity/ low comparison relevance*
DKNY people	*high congruity/ low comparison relevance*	*low congruity/ low comparison relevance*

The mountain boots category was thought to represent the prototype product category of Marlboro Classics and the trousers category was thought to represent the prototype product category of DKNY. Hence, as shown in Table 2 the CDF Mountain Boots stimulus was chosen to be highly congruent and highly comparison relevant with the prototype product category of the primer brand - Marlboro Classics boots. The CDF Trousers stimulus was expected to be low in congruity and low in comparison relevance with Marlboro Classics. CDF Trousers were chosen to be highly congruent and highly comparison relevant with the prototype product category of the primer brand - DKNY. CDF Mountain Boots was expected to be low in congruity and low in comparison relevance with this primer brand. The two primers represented as photos of typical brand users were both expected to be low in comparison relevance.

When the two target brands (mountain boots and trousers) were combined with two primed country stereotypes ("US western lifestyle" and "US urban lifestyle") portrayed by two types of visual exemplar primers (product and person) these created two levels of *primer-target congruity* and two levels of *primer-target comparison relevance.* The primer - Marlboro Classics boots - is both congruent and comparison relevant to CDF Mountain Boots and, thus, expected to represent the "contrast" condition. For this group the activated country stereotype matches the target brand and produces assimilation in the encoding phase, but is thereupon thought to be contrasted away from the target due to standard-of-comparison processes. The primer - Marlboro Classics typical users - is also congruent but not comparison relevant to CDF Mountain Boots and, thus, expected to represent the assimilation condition. None of these primers are congruent

nor comparison relevant to CDF Trousers and are, thus, not predicted to produce any priming effect. The primer - DKNY Trousers - is both congruent and comparison relevant to CDF Trousers and, thus, expected to produce contrast. The primer - DKNY typical users - is also congruent but not comparison relevant to CDF Trousers and, thus, believed to represent the assimilation condition. None of these primers are congruent or comparison relevant to CDF Mountain Boots and are, thus, not expected to produce any priming effect.

6.4. Experimental procedure

Subjects were randomly assigned to one of the eight primer-target conditions. After being seated in a lecture theater, subjects were told that the study concerned market research of a "lifestyle brand", which was the cover story. Respondents were given a short summary of the study purpose to make it more comprehensible and they were told that the study was part of a compulsory course in applied methodology and statistics. They were also told that a short lecture on the components of the study would be given after its completion. Respondents were also told that a lottery would be conducted, where 10 CDs would be awarded. The lottery was announced as a motivational factor before the study procedure commenced. Randomization was achieved by arranging the order of the questionnaires before they were handed out to the students. The process of handing out the questionnaires and giving the first study instructions was completed in a 5 minute period of time. Respondents were explicitly told not to open the booklets with the contextual primer and the related questionnaire until this first phase was over. Respondents were then guided carefully through the study tasks.

The first priming experiment was divided into two parts: the priming task and the judgment task. After the general instructions, respondents were asked to look at a photocopy of the contextual primer and evaluate it on its ability to signal the two country stereotypes - US western lifestyle and US urban lifestyle. Respondents opened their booklets at the same time and were immediately exposed to the contextual primer. They were given 20 seconds to look at the photo of the primer, and were then instructed to evaluate it as described in the questionnaire. After the priming, respondents were given some intermediate tasks to distract them from elaborating further on the primer. Following the distracting tasks, a separate judgment of a fictitious target brand was run. Each subject was given a photocopy of the ad portraying the target brand and was told to examine it in 20 seconds and make up their minds about it. Then respondents were asked what personality traits the target brand evoked. After responding to the target brand evaluations, respondents completed the rest of the questionnaire. Manipulation

checks were conducted including direct measurement of perceived primer-target congruity and primer-target comparison relevance.

6.5. Data collection instrument

Data was gathered through a questionnaire handed out as an experiment booklet with the experimental material. The booklet was randomly assigned to the student respondents. The cover page of each booklet contained instructions requesting participants to go through the pages in the right order and not to look back at the previous pages. In this way the questionnaire was designed to guide the priming task. The target brands were evaluated on a set of established scales, and all the items were measured on 7 point rating scales. For all the study variables an additive measure was constructed by aggregating the mean scores on each item, and dividing by number of items (i.e. $S = \sum_{i=1}^{n} S_i / n$, where S= score, S_i= score item, and n= number of items). A more detailed description of these measure scales is outlined below.

6.5.1. Measures of dependent variable

Target brand belief is the connection between the primed country stereotype and the brand personality of the target brands. This is operationalized as overall measures of personality traits associated with the target. In a related study Gürhan-Canli and Maheswaran (2000) used two questions to measure overall evaluations of target brand beliefs. The first question was "Please rate the extent to which target Y is characteristic of trait X". The second was "Please rate to what extent trait X is a good description of target Y". Herein the two items are used to measure target brand beliefs. Thus, to record the priming effects on target brand beliefs, two measures of the degree to which "US western lifestyle" and "US urban lifestyle" were connected to the target brands were included. The first question was phrased as "Please rate to what extent target brand Y is described by US western lifestyle/US urban lifestyle". The ending points of the measurement scale were: to a little extent/to a large extent. The second question was phrased as "Please indicate to what extent "US western lifestyle/US urban lifestyle is a good description of target brand Y". The ending points were: bad description/good description. For the dependent variable, the items, measures scales, task instructions, alphas and factor scores are shown in Table 3 in Appendix II.

An exploratory factor analysis was run for the target brand beliefs variable as the experimental setting was exploratory. Varimax rotation was chosen based on the recomandations made by Hair et al. (1998), but alternative types of rotations showed similar results. Principal Components was the extraction method. All the commonalities were high, and the factor scores showed that the dependent variable loaded strongly on one factor (Eigenvalue: 1.82). The level of variance explained was high for the dependent variable (91.0%). Internal consistency was tested by Chrombach's alfa values. The Chrombach's alfa values are usually expected to be higher than 0.70 (Nunnally 1978). However, other researchers argue that Chrombach's alfa values between [0.50 - 0.70] are the optimal level (see discussion in Nunnally 1978). In this theses, we use the dominant guideline arguing for $\alpha > 0.70$. The calculations of individual Chrombach's alfas showed that the dependent variable satisfied the requirements of internal consistency ([$\alpha = .90$] > $\alpha = .70$).

6.5.2. Measures of manipulated variables

To assess whether the experiment worked as planned, manipulation checks of: (1) primer-target congruity and (2) primer-target comparison relevance were included. Three items were used to measure both variables. The first experimentally manipulated variable *(primer-target congruity)* was measured using a 7 point rating scale. The first question was formulated as a statement – "Primer X shares many similarities with target brand Y". The ending points of this item were: totally agree/totally disagree. The second question was formulated as "Please indicate to what extent target brand Y matches attributes of primer X". The ending points of this item were: not at all matching/highly matching. Finally, the third question was formulated as "Please indicate to what extent primer X has much in common with target brand Y". The ending points of this item were: little in common/much in common.

In addition to the built-in manipulations of comparison relevance in the study design, it was found necessary to check the level of primer-target comparison relevance directly by individual items. Because direct measures of comparison relevance have not been developed in the literature, some new items were designed particularly for this study (see Churchill 1979 for guidelines in developing new measures). The level of primer-target comparison relevance was measured by three items. The first item was "Please indicate how easy you think it is to compare primer X with target brand Y", measured on a 7 point Likert type scale with scale end points "totally disagree" and "totally agree". The second item was "Please indicate the degree to which you find it relevant to compare target brand Y with primer X", and this item was measured on a

7 point Likert type scale with scale end points "irrelevant" and "relevant". The third item was "I think it is very easy to compare target brand Y with primer X", measured on a 7 point Likert type scale with scale end points "totally disagree" and "totally agree".

The manipulated variables were highly correlated, but a factor analysis combining all the items of the two manipulated variables showed two distinct factors. Because the current experimental setting was exploratory, an exploratory factor analysis was run. Again Varimax rotation was chosen (see Hair et al. 1998), although several alternative types of rotations were tested showing similar results. Principal Components was the extraction method. All the commonalities were high and the factor scores showed that both manipulated variables loaded on one factor each (Eigenvalue: 3.29 and 1.05). Furthermore, the level of variance explained was high for both independent variables (54.8% and 17.6%). Calculations of individual Chrombach's alfas showed that both independent variables satisfied the requirements of internal consistency ([α =.78 / α =.81] > α =.70). For all the manipulation checks, the items, measures scales, task instructions, alphas and factor scores are reported in Table 4 in Appendix II.

6.5.3. Measures of distracting tasks and awareness of experimental task

Three items were applied to distract respondents from connecting the visual exemplar primers to the target brands, and these items also served to reinforce the activation of the country stereotype. The distracting questions were phrased "Please indicate: (1) to what extent, (2) how blatantly, and (3) how good/bad - does primer X illustrate the country stereotype of US western lifestyle/US urban lifestyle". The scale anchors were: to a large extent/to a little extent for the first question, and totally agree/totally disagree, for the two last questions. There was a concern that subjects would guess the purpose of the experiment and simply respond to its demands. To assess this potential problem all subjects were asked to write down their thoughts about the purpose of the experiment but no one guessed the study purpose.

6.6. Sample

In total, the sample consists of 363 undergraduate business students. The students were recruited from a population of first year business students at The Norwegian School of Economics and Business Administration (NHH) in Bergen. It was planned to recruit enough students to obtain cell sizes of about 40. Students agreeing to participate were randomly assigned to the eight

experimental priming conditions and to the four control groups. Of the total number of 363 students, 100% agreed to participate in the study. Due to major non-response biases 10 questionnaires had to be removed from the sample, leaving a total sample of 353. A central issue in sample selection was whether each sample should be composed of members of a readily available homogenous group (e.g., students) or whether it should be representative of some relevant population (for instance the population in a certain section of Bergen). The critical question was to what extent one should emphasize generalizations to a larger population (as argued within the field of marketing by Lynch 1982; 1983), or alternatively should one emphasize theoretical explanations (as argued within the field of marketing by Calder et al. 1981; 1982; 1983; McGrath and Brinberg 1983; and as argued by a similar discussion within the domain of psychology and social psychology by e.g., Mook 1983; Berkowitz and Donnerstein 1982). In this study, the goal was to reveal effects of various primers on a target brand. A homogenous sample was preferred as it better ensured that the experimental treatment would have the same impact on all participants (Calder et al. 1981; 1982; 1983). Homogenous samples increase the chance of observing differences caused by the primer stimuli. Conventional rules of thumbs indicate that 30 subjects per cell are sufficient in order to meet the assumptions of statistical analyses performed on experimental data such as ANOVA (e.g., Sawyer and Ball 1981; Hair et al. 1998; see also Fern and Monroe 1996 for a review of effect sizes). Based on these recommendations, approximately 32 subjects were obtained for each of the experimental conditions. The total sample of participants was constituted of 52.9 % male and 47.1 % female students, distributed randomly across conditions.

6.7. Descriptive statistics

Prior to conducting a detailed hypothesis testing of the data, it was also considered appropriate to run simple tabulations of frequencies and descriptive statistics. The aim was to control the overall quality of the data by checking for unusual values in the frequency distributions, which could arise due to errors in punching, etc. Table 5, presented in Appendix II, summarizes the descriptive statistics of the study variables in the two experimental samples. All means, maximum and minimum values seem reasonable and they do not seem to be affected by any indices or other errors.

The descriptive statistics show that the standard deviations were reasonably high for all study variables with the lowest Sd. = 1.16 (primer-target congruity - DKNY) and the highest Sd. = 1.28 (target brand beliefs - Marlboro). It should be noted that the measures of the target brand

belief variable had Sd. of 1.21 and Sd. of 1.28. Even though the student subjects were reasonably consistent in their evaluations of the study variables, the numbers still indicate that there was enough variation left in the data to discriminate between subjects. Distributional aspects of the study variables were captured in the values of skewness and kurtosis. Values on skewness below [-1, +1] are not regarded as a serious threat to the requirement of normality in the distribution (Bollen 1989). Values on kurtosis below [-2, +2] are not regarded as a serious threat to the requirement of normality in the distribution (Byrne 1994). The values for skewness and kurtosis did not indicate any serious distributional problems for any of the study variables. Only one out of 4 variables showed skewness value slightly greater than one (skewness = 1.12 - target brand beliefs - Marlboro) and none of variables showed kurtosis values above two.

6.8. Correlations between experimental variables

Several interesting correlations were found and these are presented in Table 6a and Table 6b in Appendix II. The focus is on correlations that are appropriate to the choice of statistical test techniques. Some particularly interesting inter-correlations were found between the measures of dependent variable and the manipulated variables. The target brand belief variable was significantly correlated with the two manipulated variables in both samples, although the correlation was weaker for the primer-target comparison relevance variable in the DKNY sample. The manipulated variables were significantly correlated ($p < 0.01$) in both samples, which is reasonable as both variables describe some kind of likening of the contextual primer and the target brand. The identified significant correlations were relevant as they helped to identify the extent to which the experimental manipulations worked as planned.

6.9. Test of ANOVA assumptions

The guiding principle in determining which analysis technique to use in testing of hypotheses is to select the simplest statistical technique that provides a reasonable valid test. Therefore, in accordance with current practice in contextual priming studies only ANOVAs were run to test the hypotheses of the pilot study (e.g., Herr et al. 1983; Herr 1986; Stapel et al. 1996; 1997). Nevertheless, in the next part, tests were run to control whether the assumptions for ANOVA were met by each experimental variable. Three main assumptions must be met to use ANOVA: (a) independence of error components between subjects belonging to the different experimental

conditions, (b) treatment populations should be normally distributed and (c) homogeneity of variance across the four experimental groups in each experiment (Keppel 1982). The first assumption was met by our experimental design in which subjects were randomly assigned to one of the four conditions. The second assumption was met as the study variables were neither seriously skewed nor peaked (see Table 5). This led to the conclusion that the fairly minimal departures found in the present data did not constitute a serious threat to valid statistical inference based on the ANOVA F-test. However, the last assumption of homogeneity of error variances needed to be addressed more carefully. The statistics for the variables subjected to univariate analysis of variance are depicted in Table 7 in Appendix II.

LEVENE's F Test of Equality of Error Variances was used to test for the assumption of homogeneity of variance across the four experimental groups. The LEVENE's test calculates statistics that shows the level of equality of error in group-variances. When this test shows significant calculations this is a sign of violations of the assumption of equality. This test is not, however, dependent on the assumption of normality. The LEVENE's statistics showed that some of the study variables violated the assumption of homogeneity of variance. Results indicated that there were violations for the target brand belief variable both in the DKNY sample and in the Marlboro sample. Moreover, the primer-target congruity variable showed violations to the assumption of homogeneity of variance in the DKNY sample (see Table 7 in Appendix II).

The violations implied that the disregarded variables could not be used in an ANOVA analysis. However, Tabachnick and Fidell (1983) state that the ANOVA analysis is robust to a violation of the homogeneity assumption provided that there are no outliers (extreme values) in the cells and that the number of respondents in each cell is reasonably high. They also state that one need not consider such violations seriously as long as the cell size is relatively equal (see also Hair, Anderson, Tatham and Back 1998). The data revealed no seriously extreme values, the number of respondents in each group was relatively high, and the cell size ratio was small across variables. Thus, it seemed that the violations were not serious enough to prevent the use of ANOVA.

6.10. Manipulation of primer-target congruity and comparison relevance

The priming technique used in these experiments was expected to produce the divergent priming effects of assimilation or contrast. The hypotheses H1 and H2 outlined in Chapter 5 were tested. H1 addressed group differences in primer-target congruity while H2 addressed group differences in primer-target comparison relevance. The pattern of mean differences in the eight experimental conditions between the four contextual primers (DKNY product, DKNY person, Marlboro product and Marlboro person) and the two target brands (CDF Trousers and CDF Mountain Boots) are depicted in Table 8.

Table 8: Expected pattern of priming effects for DKNY and MARLBORO

	DKNY			
	CDF Trousers		CDF Mountain Boots	
	DKNY product	DKNY person	DKNY product	DKNY person
Primer-target congruity	*high*	*high*	*low*	*low*
Primer-target comparison relevance	*high*	*low*	*low*	*low*
	MARLBORO			
	CDF Mountain Boots		CDF Trousers	
	Marlboro product	Marlboro person	Marlboro product	Marlboro person
Primer-target congruity	*high*	*high*	*low*	*low*
Primer-target comparison relevance	*high*	*low*	*low*	*low*

The assumptions of heterogeneous covariance were violated for the primer-target congruity variable, but as the assumptions of heterogeneous covariance were not seriously violated, ANOVA's were still conducted to look deeper into the patterns of the manipulated variables. The test statistics of the ANOVA tests are reported in Table 9.

Table 9: ANOVA tests of group differences in primer-target congruity and comparison relevance

Variable	F-ratio	Sign.	DKNY CDF Trousers Product (A)	DKNY CDF Trousers Person (B)	DKNY CDF Mountain Boots Product (C)	DKNY CDF Mountain Boots Person (D)	Scheffe's comparisons	Sig.
Primer-target congruity	9.231	.000	**2.9103** *(Sd.=1.3)* *(N = 27)*	**2.0460** *(Sd.=.86)* *(N = 29)*	**1.8018** *(Sd.=.76)* *(N=27)*	**2.7417** *(Sd.=1.1)* *(N = 29)*	A > B A > C A > D B > C B < D C < D	.021 .001 .931 .812 .050 .001
Primer-target comparison relevance	14.178	.000	**3.8272** *(Sd.=1.3)* *(N = 29)*	**2.2529** *(Sd.=1.0)* *(N = 28)*	**2.1930** *(Sd.=1.2)* *(N = 28)*	**2.2917** *(Sd.=1.1)* *(N = 29)*	A > B A > C A > D B > C B < D C < D	.000 .000 .000 .997 .999 .985

Variable	F-ratio	Sign.	MARLBORO CDF Mountain Boots Product (A)	MARLBORO CDF Mountain Boots Person (B)	MARLBORO CDF Trousers Product (C)	MARLBORO CDF Trousers Person (D)	Scheffe's comparisons	Sig.
Primer-target congruity	2.171	.095	**2.5048** *(Sd.=1.0)* *(N = 35)*	**3.0323** *(Sd.=1.3)* *(N = 31)*	**2.5417** *(Sd.=1.3)* *(N = 32)*	**2.2917** *(Sd.=1.2)* *(N = 32)*	A < B A < C A > D B > C B > D C > D	.362 .999 .911 .448 .113 .872
Primer-target comparison relevance	1.570	.200	**2.4857** *(Sd.=1.3)* *(N = 33)*	**2.7849** *(Sd.=1.3)* *(N = 32)*	**2.6458** *(Sd.=1.0)* *(N = 33)*	**2.1875** *(Sd.=1.1)* *(N = 32)*	A < B A < C A > D B > C B > D C > D	.775 .956 .773 .973 .243 .473

NOTE: * The test scores are represented as experimental group mean scores

The ANOVA test statistics illustrated that the mean scores did not show the expected patterns of experimental manipulations. The ANOVA tests of primer-target congruity showed that the level of primer-target congruity differed significantly between the four groups, for both samples ($p < .000$ and $p = .095$). The test of primer-target comparison relevance differed significantly in the DKNY sample but not in the Marlboro sample ($p < .000$ and $p = .200$). The pattern of means did not show manipulations as expected, neither for the primer-target congruity variable nor for the primer-target comparison relevance variable. It was expected that group A and group B would show higher mean scores on the primer-target congruity variable compared to group C and D (see Table 8). This pattern of means was not found in any of the samples. It was also expected

that group A would show higher mean scores for the primer-target comparison variable compared to group B, C and D. This pattern of means was only found for the DKNY sample, which indicates that the experimental manipulations had only worked partly for this variable. Thus, the ANOVA tests indicated that the experimental manipulations had not worked as planned. Because the manipulations were flawed, no further tests of the hypothesized priming effects were conducted. To run such tests would be pointless as the potential priming effects could not be explained by the experimental manipulations. Nonetheless, the correlation matrixes showed some significant relationships between the experimental variables and the manipulated variables and these correlations are discussed below.

6.11. Discussion

The correlations between the experimental variables (see Table 6a and Table 6b in Appendix II) indicated some noteworthy relations that might shed light on how to improve the subsequent studies. Both samples showed a significant positive correlation between the primer-target congruity variable and the primer-target comparison relevance variable (MARLBORO: $r = .56$; $p < .001$ and DKNY: $r = .37$; $p < .001$). This correlation is logical, as both variables are measures of how respondents match up the primer with the target brand. Yet, as these two variables are regarded as different theoretical concepts, a factor analysis was run, which showed that they have discriminant validity (see Table 4 in Appendix II).

In both the Marlboro sample and in the DKNY there was a significant positive correlation between the target brand beliefs variable and the primer-target congruity variable (MARLBORO: $r = .27$; $p < .001$ and DKNY: $r = .35$; $p < .001$). This indicates that increasing congruity between a country stereotype primer and a target brand impacts the target brand beliefs with a positive effect. In other words, the target brand belief variable was more influenced by the primed country stereotype beliefs when the congruity between the country stereotype primer and the target brand increased. This strongly supported H1.

The correlations showed a significant positive correlation between the target brand beliefs and the primer-target comparison relevance variable in both samples (MARLBORO: $r = .33$; $p < .001$ and DKNY: $r = .16$; $p < 0.10$). This indicates that increasing comparison relevance between a country stereotype primer and a target brand affects the target brand personality positively. Thus, the target brand beliefs variable is more influenced by the primed country stereotype beliefs when the comparison relevance between primer and the target brand increases. Seen from a standard-of-comparison perspective, the positive correlations between the primer-target

comparison relevance variable and the target brand belief variable is surprising. The standard-of-comparison model anticipates increasing contrast with increasing primer-target comparison relevance (Stapel and Koomen 1997, Stapel, Koomen and Velthuijsen 1998), which suggests negative correlations. Yet, the positive correlations observed herein can be interpreted by at least three alternative explanations. These are: (1) the items used to measure the primer-target comparison relevance can have been insufficient to unveil the construct and (2) the prediction of the effect of high comparison relevance in the standard-of-comparison model can have been incorrect. So far arguments 1 seem most plausible, but the next two experiments will possibly shed more light on this question.

To gain knowledge from the failed experimental manipulations in the pilot study some clarification of why the manipulations did not perform as planned is considered necessary. The manipulation checks showed that the experimental treatments did not work as intended, neither for the high/low primer-target congruity conditions nor for the high/low primer-target comparison relevant conditions. There may be many explanations for this, but it is highly likely that the items used to measure the constructs may explain some of it. Because this was a first priming study where the congruity and the comparison relevance variable were measured directly as manipulation checks, the items used may not have been sufficiently validated. Maybe an even more important explanation lies in the visual nature of the primers used. When visual exemplar primers are exposed, as opposed to verbal exemplar primers, they depict a richer imagery (evoked by stimuli like signs, colors, layouts and print quality) that can affect the perceived level of primer-target congruity and primer-target comparison relevance. It may therefore not sufficient only to select target-category and non-target category exemplar primers to manipulate the comparison relevance variable, which has been the practice in classical priming studies. One should probably be more careful in selecting visual exemplar primers as it seems harder to control the information activated by visual primers than by verbal primers. Therefore, close monitoring of how the exemplar categories are depicted seems to be crucial.

Another factor that may confuse the effect of the visual exemplar primers used in this study is the fact that established brands were used to activate the country stereotypes. The problem is that the symbolic brand image of for instance Marlboro Classics boots might not match the symbolic image of CDF Mountain Boots, even though the tangible product attributes are highly congruent. If so, it is not sufficient for the Marlboro Classics boots to be a prototype exemplar of the target-category. This primer brand is positioned so strongly in one direction on symbolic features that it may no longer be perceived as congruent or comparison relevant to other products belonging to the same product category. Due to the difference in symbolic

imagery, and not only based on matches on functional attributes, respondents may perceive the two types of boots as incongruent and irrelevant to compare. They may even compare and contrast Marlboro Classics boots and CDF Mountain Boots based on symbolic imagery. Therefore, the focal point in selecting exemplar primers is to determine those product attributes or symbolic features that define the level of congruity and the level of comparison relevance, which can thereby be compared and contrasted. This notion challenges Stapel and Koomen's (1997) line of reasoning that only target-category exemplar primers are congruent and comparison relevant enough to produce contrast in a standard-of-comparison manner. When priming is applied in a marketing context, and especially if the exemplar primers are presented visually, one should consider at least two factors that can blur the perceptions of congruity and comparison relevance. These are: (1) functional attributes which define the target category and (2) symbolic attributes, which for instance indicate user imagery. Both types of attributes can probably alter the perceived level of congruity and comparison relevance between an exemplar primer and a target brand. Moreover, both types of attributes can most likely be compared and contrasted in a standard-of-comparison manner. The faults in the experimental manipulations in this experiment call for a more careful selection of visual exemplar primers. Therefore, in the next experiments the chosen primers should represent the selected country stereotype in a more salient and cohesive manner.

CHAPTER 7

EXPERIMENT 1

7.1. Chapter introduction

Because the experimental manipulations did not work as intended in the pilot study, the hypotheses outlined in Chapter 5 were re-tested in a second experiment. The primes are modified and improved to ensure that the manipulation checks work as intended. In this chapter the methodology of a new experiment is sketched out. The experiment was developed to illuminate whether a country stereotype influences assessments of brand personality traits as a consequence of contextual priming. Chapter 7 is organized as follows. First the selection of experimental variables is delineated and the experimental procedure is outlined. Then the data collection instrument is presented and the sample selection are discussed. thereafter the descriptive statistics of the study variables are presented and the correlations between the main experimental variables are reported. Then the tests of ANOVA assumptions are delineated, the tests of hypotheses are reported and the results of the manipulation checks are presented. Finally, the results of the tested hypotheses are summarized and discussed.

7.2. Design

Experiment 1 was based on the same experimental design as the pilot study, although new visual exemplar primers evoked a new country stereotype. Once again subjects were exposed to a contextual primer and asked to indicate their reactions to an advertised target brand. The focal point was what types of primers would produce comparative contrast effects rather than assimilation effects (H1 and H2). In addition to including the same dependent variable as the pilot study, Experiment 1 also tested the role of primer-target extremity (H3). The study was a 2 x 2 reduced factorial between-subjects design with two factors: (1) *primer-target congruity* and (2) *primer-target comparison relevance.* The first variable was manipulated by selecting two fictitious target brands, one being high in congruity and one being low in congruity with the country stereotype of "French finesse". The second variable was manipulated by selecting two types of visual exemplar primers, these being a product exemplar and a person exemplar, respectively. The product exemplar primer was chosen to be highly congruent and highly comparison relevant with one of the target brands (perfume). The person exemplar primer was chosen to be congruent, but not comparison relevant to this target brand. The two visual exemplar primers were both incongruent and comparison irrelevant to the second target brand (mountain boots).

7.2.1. Stimulus primers

The choice of primers was critical as the information they activated encouraged consumers to reflect on how the primed information matched the target object. As expected, the congruity and comparison relevance of the country stereotype primer would determine the resulting priming effects. Because the primers used in the pilot study did not perform as planned on the experimental manipulations, a more careful selection of primers were required for Experiment 1. To get better control over the initiated priming effects it was important that the amount and diversity of associations that the primers evoked was somewhat limited. Therefore, the exemplar primers were selected based on more strict criteria.

To ensure better coherence of the primed associations two primers were chosen, which both represented the same country stereotype. Both an icon of a famous national product and an icon of a famous national person were chosen. A well-known brand of French perfume was selected to develop the two divergent contextual primers. The brand was Chanel, which strongly evokes the country stereotype of French finesse. The primer brand was exposed as an exemplar of the perfume Chanel N°5 and as an exemplar of the brand character Coco Chanel. In Norway, where the study was conducted, the Chanel brand is profiled as an exclusive brand of perfume. The brand personality is built on stereotyped beliefs about Coco Chanel as an important originator of "Haute Couture". The prototype product is the time-honored Chanel N°5 and the brand evokes associations of sophistication, high-class, glamour, exclusiveness and elegance. The new primers were chosen because they were consistent in portraying the country stereotype of French finesse.

Pictures of the perfume Chanel N°5 and of Coco Chanel in person (see Appendix V) were chosen to manipulate the level of congruity and the level of comparison relevance in the four experimental groups. Each primer was portrayed as visual exemplars, either as (1) a glossy picture of Chanel N°5 perfume or (2) as a glossy photo of Coco Chanel. As opposed to the pilot study, only one image of one product or of one person was presented in each primer. The aim was to limit the diversity of the evoked associations. This was a potential weakness of the primers used in the pilot study, where the primers included two pictures of either male and female person exemplars or masculine and feminine product exemplars. This may have blurred the primed associations.

The picture of the person exemplar was chosen so that Coco Chanel's clothing did not interfere with the evaluations of the two selected target brands. This was a potential weakness in the pilot study because the person exemplar primers portraying "US western lifestyle" wore blue jeans, which was highly comparison relevant with CDF Trousers. Moreover, the person

exemplar primers portraying "US urban lifestyle" wore rugged clothing, which potentially was highly congruent with CDF Mountain Boots. To avoid inconsistent visual elements such as colors and design having an affect on the resulting priming effects, the images of Chanel N°5 perfume and of Coco Chanel in person were presented in black and white on a blue background. Again, this was done to monitor the types of as well as the amount of primed associations.

To make the primed country stereotype more salient, respondents were told to evaluate the primers on the extent to which they portrayed "French finesse". Nonetheless, the primers were presented rather subtly to avoid occurrence of correction processes[22]. By selecting two visual exemplar primers, both portraying "French finesse" more extremely than the target brands, the level of primer-target extremity was varied at a high level. All subjects were exposed to one of the two contextual primers and told to evaluate whether the primers portrayed "French finesse". Besides being the main priming task this was measured to appraise that the primers evoked the intended country stereotype. No difference was found between the two contextual primers in ability to signal "French finesse" ($F = .26$; $p = .61$)[23]. Primer brand knowledge was also potentially a confounding variable and was therefore tested not to differ across the experimental conditions. An ANOVA tests was run by combining the two groups exposed to the Chanel N°5 primer and the two groups exposed to the Coco Chanel primer. The test showed that the groups did not differ in primer brand knowledge ($F = 0.96$; $p = .41$)[24]. It was important that the experimental groups did not differ on any of these variables. The tests were run to ensure that the primers signaled the same in each experimental condition and that primer brand knowledge did not confuse the results.

[22] According to Moskovich and Skurnik (1999) the correction process occur when respondents are highly aware of a biasing influence due to blatant priming. For contrast effects to occur, as predicted by the correction model, it is required to use moderate primers, which are exposed blatantly.

[23] The respondents participated in the main experiment, as the test was a part of the priming task. Univariate ANOVAs were run to test the pair-wise mean differences between these two groups in evaluations of how well the two primers represented the country stereotype of French Finesse. Three items, which were developed based on the congruity measures used in the main experiments (see Table 14) were utilized to measure how well the two visual exemplar primers represented French finesse. These were: "Please indicate the degree to which primer X *fits well* with French finesse", "Primer X has *many similarities* with French finesse", and "Please indicate the degree to which primer X *matches* French finesse".

[24] Univariate ANOVAs were run across the four experimental groups to test the mean differences in subjective knowledge about the Chanel brand, which was used as the contextual primer. Four items, which were based on the subjective knowledge measures developed by Brucks 1985 (see also Flynn and Goldsmith 1999), were utilized to measure the primer brand knowledge variable. These were: "I know a lot about the Chanel brand", "I do not feel very knowledgeable about the Chanel brand", "Among my friends I have most knowledgeable about the Chanel brand", and "Compared to most other people I have more knowledge about the brand Chanel".

7.2.2. Target brands

Based on the considerations discussed in Chapter 6 (see section 6.3.2), two product categories (perfume and mountain boots) were selected as the focal products. Student respondents were likely to be interested in using such products to signal individual lifestyle preferences. The ads presenting the target brands contained photos of the two target product categories. The non-existing brand name "CDF" was attached to the product category label as follows (a) "CDF Perfume" and (b) "CDF Mountain Boots". To leave room for individual interpretations it was important to employ target brands, which were ambiguously described. Sufficient ambiguity in the description of the target brands was secured by limiting the information of brand attributes revealed in the ads. The target brands were presented as visual exemplars of the two product categories with no other information given. Only photos of CDF Perfume and CDF Mountain Boots were exposed. The primed country stereotypes were re-exposed and reinforced in the ad slogans, which included the following statements: "CDF Perfume - a product of French finesse" and "CDF Mountain Boots - a product of French finesse". The ads were manipulated to contain either target congruent or target incongruent slogans. The target congruent slogan was "CDF Perfume - a product of French finesse" and the target incongruent slogan was "CDF Mountain Boots - a product of French finesse". The experimental manipulations are illustrated in Table 10.

Table 10: Relations between two contextual primers and two target brands

Contextual primers	CDF Perfume	CDF Mountain Boots
Chanel N°5	*high congruity/ high comparison relevance*	*low congruity/ low comparison relevance*
Coco Chanel	*high congruity/ low comparison relevance*	*low congruity/ low comparison relevance*

When the target brands were combined with two types of visual exemplar primers it created two levels of *primer-target congruity* and two levels of *primer-target comparison relevance.* Chanel N°5 was both congruent and comparison relevant to CDF Perfume and, thus, expected to represent the contrast condition. For this group the activated country stereotype was expected to match the target brand and produce assimilation in the encoding phase, but was then expected to be contrasted due to standard-of-comparison processes in the judgment phase. Coco Chanel was also expected to be congruent but not comparison relevant to CDF Perfume and, thus, was expected to represent the assimilation condition. None of the primers were thought to be

congruent or comparison relevant to CDF Mountain Boots and was, thus, not expected to produce either assimilation nor contrast.

7.3. Experimental procedure

Subjects were randomly assigned to one of the primer-target conditions. After being seated in a lecture theater, subjects were told that the study concerned market research of "lifestyle brands", which was the cover story. In accordance with the standard procedure for classical priming experiments (e.g., Herr, 1986; 1989; Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998) the first experiment was divided into two parts: the priming task and the judgment task. After the general instructions were given, respondents were asked to look at a photocopy of the country stereotype primer (for about 20 seconds) and evaluate it on its ability to signal French finesse. After the priming task respondents were given some intermediate questions to distract them from elaborating further on the primer. Following the distractions a separate judgment of a target brand was administered. Each subject was given an ad of a target brand and was told to examine it briefly and make up their minds about it. Then respondents were asked about what personality traits the target brand evoked. After assessing the target brand, respondents completed the remaining questionnaire. Manipulation checks were conducted including direct measurement of perceived primer-target congruity, primer-target comparison relevance and primer-target extremity.

7.4. Data collection instrument

As mentioned earlier, data were gathered through a questionnaire, which was handed out in an experiment booklet. The experimental material was randomly assigned to student respondents within the experimental groups. The cover page of each booklet contained instructions requesting participants to go through the pages in the right order, and not to look back at the previous pages. In this way the questionnaire was designed to guide the priming task. The target brand was evaluated on a set of established scales chosen to uncover possible effects of the contextual primer. All variables were measured on a 7 point rating scale. For all the study variables an additive measure was constructed by aggregating the scores on each item, and dividing by number of items (i.e. $S = \sum_{i=1}^{n} S_i / n$, where S= score, S_i= score item, and n= number of items). A detailed description of these measurement scales is outlined below.

7.4.1. Measures of dependent variable

The dependent measure of overall target brand evaluation was, as in the pilot study, the target brand belief variable. To record the priming effects on overall target brand beliefs, two measures of the degree to which French finesse was connected to the target brand were included. The first question was phrased as "Please rate to what extent target brand Y is described by French finesse". The ending points of the measurement scale were: to a little extent/to a large extent. The second question was phrased as "Please indicate to what extent French finesse is a good description of target brand Y". The ending points are: bad description/good description. The items, measures scales, task instructions, alphas and factor scores are reported in Table 11.

Table 11: Instructions, dimensionality and internal consistency of dependent variables

Items	**Scales**	**Factor**		*- Eigenvalue - % variance explained - Alpha*
		h^2	**1**	
Items of target brand beliefs:				
a. Please rate the extent to which target brand Y is characteristic of French finesse. b. Please rate to what extent French finesse is a good description of target brand X. *(Gürhan-Canli and Maheswaran 2000)*	a. to a little extent/ to a large extent b. bad description/ good description	.875 .875	.935 .935	1.75 87.5% α =.85

Note: * Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

A factor analysis was run for the target brand belief variable combining the two items and this analysis showed one factor. Varimax rotation was applied and Principal Components was the extraction method. The commonalties (h^2) were high, indicating that substantial parts of the variance in the original variables were captured by the factor solution. The Eigenvalue scores also showed that the two items of the target brand belief variable loaded strongly on one factor (Eigenvalue = 1.75). Furthermore, the level of variance explained was high for the dependent variable (87.5%), and calculations of individual Chrombach's alfas showed that the dependent variable satisfied the requirements of internal consistency ([α = .85] > α = .70).

7.4.2. Measures of manipulated variables

To assess whether the experiment had worked as planned, measures of: (1) primer-target congruity and (2) primer-target comparison relevance were included. Three items were used to

measure both variables. For both the manipulation checks, the items, measures scales, task instructions, alphas and factor scores are reported in Table 12.

Table 12: Instructions, dimensionality and consistency of manipulated and moderating variables

Items	Scales	h^2	Factor 1	Factor 2	Factor 3	- *Eigenvalue* - % *variance explained* - *Alpha*
Manipulated variables						
1. Primer-target congruity						
1. Primer X shares many similarities with target brand Y!	a. totally agree/disagree	.840	.832			2.47 24.8 %
2. Please indicate to what extent target brand Y matches attributes of primer X.	b. not at all/ highly matching	.888	.909			Σ = 24.8 %
3. Please indicate to what extent primer X has much in common with target brand Y. *(Kirmani and Shiv 1998)*	c. little/much in common	.853	.861			α = .91
2. Primer-target comparison relevance						
1. Please indicate how easy you think it is to compare primer X with target brand Y.	a. very difficult/ very easy	.774		.802		.95 9.49 %
2. Please indicate the degree to which you find it relevant or irrelevant to compare target brand Y with primer X.	b. irrelevant/ relevant	.765		.821		Σ = 34.3 %
3. I think it is very easy to compare target brand Y with primer X! *(Gürhan-Canli and Maheswaran 2000, but item c was developed by study researcher)*	c. totally agree/ disagree	.804		.857		α =.86
Moderating variable						
3. Primer-target extremity						
1. Compared to target brand X, primer X expresses "French finesse" more extremely.	a. totally agree/ disagree	.765			.874	4.58 45.7%
2. Compared to target brand X, primer X is a more extreme exemplar of "French finesse".		.756			.854	Σ = 80.1%
3. Compared to target brand X, primer X expresses "French finesse" more distinctly.		.860			.915	α =.90
4. Compared to target brand X, primer X is a more distinct exemplar of "French finesse". *(Developed by study researchers)*		.695			.812	

Note: * Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

The first experimentally manipulated variable *(primer-target congruity)* was measured by three items. The first question was formulated as a statement – "Primer X shares many similarities with target brand Y". The ending points of this item were: totally agree/totally disagree. The second question was formulated as "Please indicate to what extent target brand Y matches attributes of primer X". The ending points of this item were: not at all matching/highly matching. Finally, the third question was formulated as "Please indicate to what extent primer X has much in common with target brand Y". The ending points of this item were: little in common/much in common.

The second experimentally manipulated variable *(primer-target comparison relevance)* was also measured by three items. An established scale to measure the comparison relevance construct was not identified in the priming literature. Therefore, two items from an established scale used by Gürhan-Canli and Maheswaran 2000 in a related study were modified to fit the present experiment. Moreover, the researcher developed a third item. The first question was formulated as "Please indicate how easy you think it is to compare primer X with target brand Y". The ending points of this item were: very difficult/very easy. The second question was formulated as "Please indicate whether you find it relevant or relevant to compare target brand Y with primer X". The ending points of this item were: relevant/irrelevant. Finally, the third question was formulated as a statement "I think it is very easy to compare target brand Y with primer X". The ending points of this item were: totally agree/totally disagree. Because no earlier studies seem to have operationalised the comparison relevance variable, the researchers developed these items.

A factor analysis was run, which combined all the items of the manipulated variables (primer-target congruity and comparison relevance) with the items of the moderating variable (primer extremity). This was done because these variables were highly correlated and therefore seemed to be interrelated (see Table 15 in Appendix III). Varimax rotation was applied but other types of rotations showed similar results. Principal Components was the extraction method. All the commonalties (h^2) were high and the Eigenvalue scores showed that the manipulated variables loaded on one factor each (Eigenvalue: 2.47 and 0.95). However, the primer-target comparison relevance variable showed a weak Eigenvalue slightly below 1. A common rule of thumb is that only factors with Eigenvalues greater than 1 represent discrete factors. However, according to Hair et al. (1998), in some instances this simplified rule is flawed. They recommend using this cut-off rule only when the number of items included in the factor analysis is between 20 and 50. If the number of items is less than 20, as it is here, there is a tendency for this method to extract a conservative number (too few) of factors (Hair et al. 1998, p. 104). Alternatively they

argue that a "scree test" should be employed to identify the optimum number of extracted factors. The point at which the curve of Eigenvalue plots begins to straighten out is considered to indicate the maximum number of factors to extract (Hair et al. 1998). Here a clear cut-off point is identified after the primer-target comparison relevance factor (the Eigenvalue diminishes from .95 to .47). Hence, as the deviation from 1 is negligible for the primer-target comparison relevance variable and as it showed an Eigenvalue higher than 1 in the pilot study (see Table 4 in Appendix II), this rather low Eigenvalue score is not considered a limitation. The level of variance explained was acceptable for both the manipulated variables (24.8% and 9.49%). Moreover, the Chrombach's alfas showed that both independent variables satisfied the requirements of internal consistency ([α = .91 / α = .86] > α = .70).

7.4.3. Measures of primer-target extremity

The moderating variable was primer-target extremity, which was included to test H3. The primer-target extremity variable was measured by four items, which all were verbalized as comparisons between the exemplar primers and the target brands. In a similar way as done by Stapel et al. (1998) the priming stimuli were all relatively extreme. This was to ensure that both assimilative and contrastive processes potentially could occur as predicted by the standard-of-comparison model (Stapel and Koomen; 1996; 1997; Stapel et al. 1997; 1998).

The first question was - "Compared to target brand X, primer X expresses French finesse more extremely". The second question was "Compared to target brand X, primer X is a more extreme exemplar of French finesse". The third question was "Compared to target brand X, primer X expresses French finesse more distinctly". Finally the fourth question was "Compared to target brand X, primer X is a more distinct exemplar of French finesse". The ending points of all these items were: totally agree/totally disagree. The items, measures scales, task instructions, alphas and factor scores for the moderating variable are reported in Table 12.

Originally the moderating variable had been operationalised as two distinct variables (e.g., Stapel et al. 1997; 1998), but in the present study, the factor analysis revealed that the four items loaded strongly on one factor. The primer-target extremity variable was designed not to vary significantly across the four primer-target relations. As discussed above, a factor analysis was run by combining the items of the two manipulated variables with the four items of the moderating variable. Varimax rotation was applied and Principal Components was the extraction method. The commonalties (h^2) were high and the factor loadings showed that the primer-target extremity variable loaded on one factor (Eigenvalue: 4.58). Furthermore, the level of variance

explained was high for this variable (45.7%). Calculation of Chrombach's alfa showed that this variable satisfied the requirements of internal consistency ($\alpha = .90 > \alpha = .70$).

An ANOVA was run to tests the extent to which the primer-target extremity variable differed across the corresponding groups. The result of the ANOVA is reported in Table 13 in Appendix III. The pattern of the findings from the ANOVA of the primer-target extremity variable supported the prediction that both primers should portray the country stereotype in a relatively extreme manner. The test of the primer-target extremity variable showed that the mean scores were substantially above 4 across all groups, which was significantly above the mid-point of the 7 point rating scale. This indicated that the primers were perceived as more extreme exemplars of the primed country stereotype than their respective target brands. Yet, the means were slightly larger for groups C and D than for groups A and B. This was inevitable as the primers naturally were more extreme exemplars of French finesse in relation to CDF Mountain Boots (low congruity) than in relation to CDF Perfume (high congruity). However, it was important that the two pairs of corresponding groups (A vs. B and C vs. D) did not differ in primer-target extremity because these groups would be tested against each other. The mean differences in primer-target extremity between groups A and B and between groups C and D were not significant ($A > B$; $p = .979$ and $C > D$; $p = .790$).

7.4.4. Measures of distracting tasks and awareness of experimental task

Three items were applied to distract respondents from connecting the visual exemplar primers to the target brands, and these items also served to reinforce the activation of the country stereotype. The distracting questions were phrased "Please indicate: (1) to what extent, (2) how blatantly, and (3) how good/bad - does primer X illustrate the country stereotype of French finesse". The ending points of the scales used to measure the distracting task items were: to a large extent/to a little extent for the first question, and totally agree/totally disagree for the two last questions. As with any experiment, there was a concern that subjects would guess the purpose of the experiment and simply respond to its demands. To assess this potential problem all subjects were asked to write down their thoughts about the purpose of the experiment, but no-one guessed the study purpose.

7.5. Sample

The sample consisted of 158 undergraduate business students recruited from the Norwegian School of Economics and Business Administration (NHH) in Bergen. Students were recruited at the end of a lecture of an obligatory introductory course in finance. They were requested to participate in a market research project to evaluate lifestyle brands as the cover story. Respondents were told that a lottery would be conducted in which exclusive sports equipment would be awarded to the study participants. Just as in the pilot study, the central issue in sample selection was whether the sample should be composed of members of a homogenous group or whether it should be representative of some relevant population. In this study, the goal was to reveal effects of priming manipulations on target brand beliefs. With this goal in mind, a homogenous student sample was preferred, as such samples better ensure that the experimental treatment works as intended.

Conventional rules of thumb indicate that 30 subjects per cell are appropriate in order to meet the assumptions of statistical analyses performed on experimental data such as ANOVA (e.g., Sawyer and Ball 1981). However, the sample size determines the statistical power of the investigated effects (e.g., Cohen 1977). The smaller the expected effects of the experimental manipulations, the more power needed to detect them. Statistical power is increased by accurate measurements and large sample sizes (Cohen 1977). Experience from several studies investigating effects of exemplar priming gives a good picture of the effect sizes to expect (see argumentation about effect size in Fern and Monroe 1996). In general these studies operate with samples sizes ranging from 25 to 35 respondents in each condition (e.g., Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998). These studies should be good indicators of the sample size required to obtain sufficient statistical power in the present study. Although the experimental design of this study was similar to the studies run by Stapel and his adherents, it was conducted in a new marketing setting. Therefore, to be on the safe side, the plan was to recruit students to obtain cell sizes of about 40. Students agreeing to participate were randomly assigned to the four experimental priming conditions. Approximately 40 subjects were obtained in each cell. The total sample of participants constituted of 67.7% male and 32.3% female students, distributed randomly across conditions (CDF Perfume: $F = .303$, $p = .58$; CDF Mountain Boots: $F = 2.071$, $p = .15$).

7.6. Descriptive statistics

Prior to conducting detailed hypothesis testing it was considered appropriate to run simple tabulations of frequencies and descriptive statistics. The aim was to control the quality of the data set by checking for unusual values in the frequency distributions, which could arise due to errors in punching, etc. Table 14 in Appendix III summarizes the descriptive statistics for all the study variables. All means, maximum and minimum values were are reasonable and they do not seem to be affected by any indices or other errors. The descriptive statistics show that the standard deviations are reasonably high for all study variables with the lowest Sd. = 1.17 (primer-target congruity) and the highest Sd = 1.28 (target brand beliefs). Even though the student subjects are reasonably consistent in their evaluations of the study variables, the numbers still indicate that there is enough variation left in the data to discriminate between subjects. Distributional aspects of the study variables are captured in the values of skewness and kurtosis (see discussion in Chapter 6, section 6.7). The values for skewness and kurtosis do not indicate any serious distributional problems for any of the study variables. Only one variable has a skewness value slightly greater than one (1.07). Likewise, only one variable has a kurtosis value slightly above one (1.15).

7.7. Correlation between experimental variables

As shown in Table 15 in Appendix III, several interesting correlations are found. Some analyses of these correlations are closely addressed in the discussion of hypothesis testing later in this chapter. Here the focus is on correlations that may influence the choice of the statistical test techniques. The dependent variable was positively correlated with the two manipulated variables ($r = .47$; $p = .001$ and $r = .48$; $p = .001$) and negatively correlated with the moderating variable ($r = -.36$; $p = .001$). The primer-target congruity and the primer-target comparison relevance variables were significantly correlated ($r = .32$; $p = .001$). This is reasonable as both variables describe some kind of likening of the contextual primer and the target brand. Strong negative correlations were revealed between the moderating variable (primer-target extremity) and the two manipulated variables ($r = -.23$; $p = .001$ and $r = -.26$; $p = .001$). The identified significant correlations are relevant as they can help to identify the extent to which the experimental manipulations have worked, which seem to be the case.

7.8. Test of assumptions

The guiding principle in determining which analysis technique to use in testing of hypotheses is to select the simplest statistical technique that provides a reasonable valid test. Particularly important to the choice of statistical techniques is the pattern of correlation between the dependent variables. Because Experiment 1 embodies only one dependent variable only univariate analysis of variance (ANOVA) is used to test hypotheses. This is in accordance with current practice in contextual priming studies (e.g., Stapel and Koomen 1997; Stapel et al. 1998).

7.8.1. Test of ANOVA assumptions

In the following, tests are run to control whether the assumptions for ANOVA are met by each of the experimental variables. Three main assumptions should be met in order to use ANOVA: (a) independence of error components between subjects belonging to the different experimental conditions, (b) treatment populations should be normally distributed and (c) homogeneity of variance across the four experimental groups (Keppel 1982). The first assumption was met by our experimental design in which subjects were randomly assigned to one of the four conditions. The second assumption was met as the study variables were neither seriously skewed nor peaked. As shown in Table 14 in Appendix III, skewness and kurtosis values were within acceptable ranges for all variables. Across all variables, all kurtosis scores showed absolute values smaller than two. Moreover, almost all skewness scores showed values smaller than one (< 1.07). This led to the conclusion that the fairly minimal departures found in the present data did not constitute a serious threat to valid statistical inference based on the ANOVA F-test. The last assumption of homogeneity of error variances needed, however, to be addressed more carefully. The statistics for the variables subjected to univariate analysis of variance are depicted in Table 16 in Appendix III.

LEVENE's F Test of Equality of Error Variances was used to test for the assumption of homogeneity of variance across the four experimental groups. The LEVENE's test calculates statistics that show the level of equality of error in group-variances. When this test shows significant calculations, this is a sign of violations of the assumption of equality. This test is not, however, dependent on the assumption of normality. The LEVENE's statistics showed that some of the study variables violated the assumption of homogeneity of variance. Results indicated that there was a violation for the dependent variable. Moreover, the manipulated variables (1) primer-

target congruity and (2) primer-target comparison relevance showed violations to the assumption of homogeneity of variance.

The violations imply that the disregarded variables cannot be used in an ANOVA analysis. However, Tabachnick and Fidell (1983) state that the ANOVA analysis is robust to a violation of the homogeneity assumption provided that there are no outliers (extreme values) in the cells and that the number of respondents in each cell is reasonably high. They also state that one need not consider such violations seriously as long as the cell size is relatively equal (Hair, Anderson, Tatham and Back 1998). The data revealed no seriously extreme values, the number of respondents in each group was relatively high (35-42), and the cell size ratio was small across variables. Thus, it seems that the violations were not serious enough to prevent the use of ANOVA.

7.9. Manipulation of primer-target congruity and comparison relevance

For the experimental manipulations, the pattern of expected mean differences between the two contextual primers and the two target brands are depicted in Table 17.

Table 17: Expected pattern of primer-target congruity and primer-target comparison relevance

	CDF Perfume		CDF Mountain Boots	
	Chanel N°5	Coco Chanel	Chanel N°5	Coco Chanel
Primer-target congruity	*high*	*high*	*low*	*low*
Primer-target comparison relevance	*high*	*low*	*low*	*low*

Table 16 in Appendix III shows that the assumptions of heterogeneous covariance were violated for the manipulated variables but ANOVAs usually are robust to violations of the homogeneity of variance assumption (Tabachnick and Fidell 1983). Therefore, it was not considered necessary to report Kruskall-Wallis non-parametric hypotheses tests. Nonetheless, some Kruskal-Wallis tests were run and the test statistics are reported in Table 18 in Appendix III. This test showed the same results as the ANOVA. The results of the regular one-way ANOVAs are reported in Table 19.

Table 19: ANOVA tests of group differences in primer-target congruity and comparison relevance

Variable	F-ratio	Sig.	CDF Perfume		CDF Mountain Boots		Scheffe's comparisons	Sig.
			Chanel N°5 (A)	Coco Chanel (B)	Chanel N°5 (C)	Coco Chanel (D)		
Primer-target congruity	8.767	.000	**2.816** *(Sd.=1.4)* *(N = 38)*	**2.889** *(Sd.=1.1)* *(N = 42)*	**1.857** *(Sd.=.97)* *(N = 42)*	**2.114** *(Sd.=.91)* *(N = 35)*	A < B	.993
							A > C	.002
							A > D	.064
							B > C	.001
							B > D	.026
							C < D	.790
Primer-target comparison relevance	10.914	.000	**2.649** *(Sd.=1.5)* *(N = 38)*	**2.857** *(Sd.=1.3)* *(N = 42)*	**1.635** *(Sd.=.82)* *(N = 42)*	**1.815** *(Sd.=.90)* *(N = 36)*	A < B	.888
							A > C	.002
							A > D	.026
							B > C	.000
							B > D	.002
							C < D	.926

NOTE: * The test scores are represented as experimental group mean scores

The mean differences only partly supported the expected pattern of experimental manipulations. The manipulations worked as expected for the primer-target congruity variable, but only partly as expected for the primer-target comparison relevance variable. Although all scores were relatively low (measured on a 7 point rating scale), the scores for CDF Perfume were significantly higher than the scores for CDF Mountain Boots. The test statistics showed that the level of primer-target congruity differed significantly between the four groups (F = 8.767; p = .000). The mean scores were significantly larger in groups A and B compared to groups C and D. Moreover, as expected the mean scores of the primer-target congruity variable were relatively equal between the two "corresponding groups" evaluating the same target brand. CDF Perfume was found most congruent with the primed country stereotype indicating that the manipulation of primer-target congruity had worked as planned. The test statistics showed that the level of primer-target comparison relevance also differed significantly between the four groups (F = 10.914; p = .000). The means were significantly larger in groups A and B compared to groups C and D. However, the means were relatively equal between the two corresponding groups (A vs. B and C vs. D). These findings indicated that the manipulation of primer-target comparison relevance had only partly worked as planned.

A problematic question was concealed for the manipulation of the primer-target comparison relevance variable. The test statistics did not fully show mean scores that supported the planned manipulation of primer-target comparison relevance between the two groups evaluating CDF Perfume (A and B). Group A (primed with Chanel N°5) was supposed to perceive higher primer-target comparison relevance than group B (primed with Coco Chanel). In Chapter 4 it was

argued that the relevance to compare a primer with a target was higher when the exemplar primer belonged to the same cognitive category as the target (Stapel and Koomen 1997). Only then the primer would be a prototype exemplar of the target, meaning that it could be compared and contrasted on an attribute-by-attribute basis. It was anticipated that Chanel N°5 would be highly relevant to compare with CDF Perfume (group A). It was also anticipated that Coco Chanel - being an exemplar person and not a prototype of the target product category, would be perceived as less comparison relevant in relation to CDF Perfume (group B). However, opposite to expectations, group B obtained the highest mean scores on the "primer-target comparison relevance" variable. Although the manipulation checks in Experiment 1 performed much better than the manipulation checks in the pilot study, the insufficiency in the manipulation of primer-target comparison relevance is a challenge to the experimental design that will be discussed further.

The weakness in the manipulation checks was not regarded as so serious that tests of H1 and H3 could not be run. It was therefore considered useful to test at least these two hypotheses. Yet, the insufficiencies in the manipulation checks implied that H2 could not be tested satisfactorily. However, despite the insufficiency in the measures of the primer-target comparison relevance variable, the prediction that only target-category exemplar primers can produce contrast caused by standard-of-comparison processes is strongly supported in prior priming research (Stapel and Koomen 1997; 1998; Stapel at al. 1997; 1998). Therefore, despite the difficulties in measuring the primer-target comparison relevance variable correctly, the initial hypotheses have been maintained as formulated and the tests of H1 and H3 have been conducted as first intended. It should be noted, however, that even if the pattern of priming effects would show contrast as predicted by H2, it could not be concluded that the potential contrast effect was caused by the primer-target comparison relevance variable.

7.10. Test of target brand beliefs (H1)

The priming technique used in this study was expected to produce different types of priming effects. The four specific hypotheses (H1, H2, and H3) developed in Chapter 5 will now be tested. Because the manipulation check did not work completely for the primer-target comparison relevance variable, only H1 can be tested satisfactorily.

H1: There is a positive relationship between the level of primer-target congruity and the effect of a primed country stereotype on target brand beliefs.

H2: For a congruent target brand, a country stereotype primer low in comparison relevance produces a more positive impact on target brand beliefs than a primer high in comparison relevance.

The correlation matrix (see Table 15 in Appendix III) reveals a significant positive correlation between the target brand beliefs variable and the primer-target congruity variable (r = .47; p = .001). This indicates that increasing congruity between a country stereotype primer and a target brand affected target brand beliefs with a positive effect. In other words, the target brand belief variable was more influenced by the primed country stereotype when the congruity between the primer and the target brand increased. This rendered some support to H1.

An ANOVA was run to test H1 further. However, the target brand beliefs variable did not show satisfactory scores on the test of homogeneity (see Table 16 in Appendix III). As the violation of the test of homogeneity was not serious, an ANOVA was also run for the target brand beliefs variable across all groups (a Non-parametric Kruskal-Wallis test was also run, which showed the same results as the ANOVA. See Table 20 in Appendix III). The univariate main effects of mean differences are reported in Table 21

Table 21: ANOVA analyses of differences in target brand evaluations across all groups

Variable	F-ratio	Sig.	CDF Perfume		CDF Mountain Boots		Scheffe comparisons	Sig.
			Chanel N°5 (A)	Coco Chanel (B)	Chanel N°5 (C)	Coco Chanel (D)		
							A < B	.244
							A > C	.043
Target brand beliefs	9.522	.000	**2.894*** *(Sd.=1.4) (N = 38)*	**3.441** *(Sd.=1.2) (N = 42)*	**2.122** *(Sd.=1.1) (N = 41)*	**2.444** *(Sd.=1.1) (N = 36)*	A > D	.450
							B > C	.000
							B > D	.004
							C < D	.703

NOTE: * The test scores are represented as experimental group mean scores

A univariate test of variance across the four experimental groups allows a test that will reveal whether the mean differences between each group were significant or not. The ANOVA included the target brand belief variable. The tests showed that the dependent variable differed significantly across the four groups ($F = 9.522$; $p = .000$). In general terms, a clear shift in target brand beliefs was identified between the pairs of comparable target brands. Both groups that evaluated CDF Mountain Boots rated them lower on target brand beliefs than the two groups that evaluated CDF Perfume. The ANOVA indicated that the target brand belief variable differed significantly across the four experimental groups. The data showed a difference, although not significant, in judgment between the two corresponding groups that evaluated CDF Perfume ($A < B$; $p = .224$). The direction of this effect was in accordance with H1, which proposed that a primed country stereotype would produce a positive impact in situations with high primer-target congruity and low comparison relevance (group B). Thus, group B perceived CDF Perfume to be more descriptive of the primed country stereotype than group A. There was not, however, a significant difference in ratings of beliefs between the two groups that evaluated CDF Mountain Boots ($C < D$; $p = .703$). This result supported hypothesis H1, which indicated no impact on target brand beliefs in situations with low primer-target congruity and low primer-target comparison relevance (group C and D).

Although H2 could not be tested, it was observed that the mean differences were in accordence with the predicted pattern for H2. This is interesting because it either indicates that the manipulation checks did not test the comparison relevance variable sufficiently or that the contrast effect was caused by factors other than the comparison relevance variable. To get better insight into this observation som additional analyses are now presented.

7.10.1. Additional analyses

The ANOVA, which were conducted across all experimental groups, were not sufficiently efficient in testing the pair-wise variance between the two corresponding groups. A test run across all experimental groups do not rule out all alternative sources that might have produced the variance in the target brand evaluations. Hence, the tested mean differences in responses may be created by other factors than the contextual primers, such as characteristics of the visual target brands and individual variations in appreciation of the target product categories. The explanation of the variation between the four experimental groups is therefore still somewhat unclear. This uncertainty should be addressed before the study findings can be concluded. One way to address differences created by primer-target comparison relevance variable is to run pair-wise ANOVAs

that only include the corresponding groups that are high in primer-target congruity. This test of variance will reveal whether the mean difference between the corresponding groups are significant. Accordingly, an ANOVA was performed to test differences in target brand belief evaluations between the corresponding groups that were equal in primer-target congruity but differed in primer-target comparison relevance. The univariate main effect of the ANOVA is reported in Table 22.

Table 22: ANOVA's of differences in target brand evaluations across corresponding groups

			CDF Perfume	
	F-ratio	Sig.	Chanel N°5 (A)	Coco Chanel (B)
Target brand beliefs	3.533	.064	**2.894*** *(Sd.=1.41)* *(N =38)*	**3.441** *(Sd.=1.19)* *(N =42)*
			CDF Mountain Boots	
	F-ratio	Sig.	Chanel N°5 (C)	Coco Chanel (D)
Target brand beliefs	1.764	.188	**2.122** *(Sd.=1.0)* *(N =42)*	**2.444** *(Sd.=1.13)* *(N =36)*

NOTE: * The test scores are represented as experimental group mean scores

Test of H1: In accordance with the previous ANOVA, this test showed a significant mean difference between the corresponding groups that evaluated CDF Perfume on the target brand beliefs variable. The ANOVA showed that the target brand belief variable differed significantly between the paired groups (A = 2.894 and B = 3.441; p = .064). This test verified that CDF Perfume was evaluated significantly higher on target brand beliefs when respondents were primed with Coco Chanel than when they were primed with Chanel N°5. It should be noted, however, that whether this result was caused by stronger contrast for group A or by stronger assimilation for group B was not made entirely clear by this experimental design. The reason for this is that no control groups, which could serve as reference points for the direction of the resulting priming effects were included. This deficiency in the experimental design will be dealt with in the subsequent experiment. Nonetheless, it seemed that H1 was supported.

Also in accordance with the previous ANOVA, this test did not show significant differences on the dependent variable between the corresponding groups evaluating CDF Mountain Boots. The ANOVA showed that the ratings on the target brand belief variable did not

differ significantly (C = 2.122 and D = 2.444; p = .188). It is thereby verified that CDF Mountain Boots did not differ significantly in evaluations of target brand beliefs, irrespective of which primer was used. However, whether this result actually represented "a null effect" or alternatively, "a heuristic assimilation effect" for both group C and group D was not made entirely clear by the current experimental design. This can only be clarified when control groups are included.

7.11. Test of primer-target extremity (H3)

With reference to hypothesis H3, the moderating effect of primer-target extremity is now tested:

H3: The size of the assimilation effect is larger for a non-extreme primer than for an extreme primer.

The correlation matrix (see Table 15 in Appendix III) revealed a significant negative correlation between the target brand beliefs variable and the primer-target extremity variable (r = -.36; p = . 001). This indicated that decreasing (increasing) extremity between a country stereotype primer and a target brand affected evaluations of target brand beliefs with a positive (negative) effect. In other words, the target brand beliefs variable was more positively influenced by the primed country stereotype when the extremity between the primer and the target brand decreased, and vice versa. This rendered support to H3.

To test H3 further individual ANOVAs were run for the target brand belief variable. The primer-target extremity variable did not show significant scores on LEVENE's test of homogeneity (see Table 16 in Appendix III). Therefore, only an ordinary one-way ANOVAs was run across the corresponding groups to test whether or not this variable moderated the observed main effects. Each corresponding group was divided into two (by a median split), and ANOVAs were run across the four new groups to test for differences in responses between respondents who perceived the primer to be more or less extreme. The results are reported in Table 23.

Table 23: ANOVA of differences in target brand beliefs across corresponding groups (median split on primer-target extremity)

			CDF Perfume					
			Chanel N°5		Coco Chanel			
	F-ratio	Sig.	Low extremity **(A)**	High extremity **(B)**	Low extremity **(C)**	High extremity **(D)**	Scheffe's comp.	Sig.
Target brand beliefs	6.459	.001	**3.3261*** *(Sd. = 1.3)* *(N = 23)*	**2.2333** *(Sd. =1.3)* *(N = 15)*	**3.8036** *(Sd. =.85)* *(N = 28)*	**2.7143** *(Sd. =1.4)* *(N = 14)*	A > B A < C A < D B < C B < D C > D	.065 .575 .523 .002 .762 .061

			CDF Mountain Boots					
			Chanel N°5		Coco Chanel			
	F-ratio	Sig.	Low extremity **(A)**	High extremity **(B)**	Low extremity **(C)**	High extremity **(D)**	Scheffe's comp.	Sig.
Target brand beliefs	5.616	.020	**2.4231** *(Sd. = 1.0)* *(N = 13)*	**1.9821** *(Sd. = 1.0)* *(N = 28)*	**2.9231** *(Sd. = 1.0)* *(N = 13)*	**2.1739** *(Sd. = 1.2)* *(N = 23)*	A > B A < C A > D B < C B < D C > D	.716 .718 .960 .107 .932 .213

NOTE: * The test scores are represented as experimental group mean scores

Significant differences were found across the four groups on the primer-target extremity variable for both primers for CDF Perfume and a similar trend was found for CDF Mountain Boots ($F = 6.459$; $p = .001$, $F = 5.616$; $p = .020$). Both ANOVAs showed consistently increased assimilation of country stereotype beliefs when the primer-target extremity relation was less extreme. However, an alternative explanation is that the ANOVAs showed consistently increased contrast of country stereotype beliefs when the primer-target extremity relation was more extreme.

Test of H3: For CDF Perfume, the mean difference between the two groups primed with Chanel N°5 was significant (A > B; $p = .065$). Moreover, the mean difference between the two groups primed with Coco Chanel was significant (A > B; $p = .061$). For CDF Mountain Boots, Scheffes' comparisons did neither show a significant mean difference between the groups primed with Chanel N°5 (A > B; $p = .716$) nor for the groups primed with Coco Chanel (C > D; $p = .213$). However, it should be noted, that the effect sizes were relatively moderate and that the number of respondent in each group was so small that the power of the test was low. According to Hair et al. (1998), decreased sample sizes generally increase the sampling error and decrease the sensitivity (power) of the test. Taken in consideration that sample size was low and that the

observed power was low (observed power =: .47, which is less than .80 or above as recommended by Hair et al. 1998), it seems liable that the results showed a similar trend for CDF Mountain Boots. It is therefore concluded that the predicted effect of primer-target extremity was observed for the groups evaluating CDF Perfume, and that a similar trend was evident for the groups evaluating CDF Mountain Boots. Hence, H3 was supported.

7.12. Summary of findings from Experiment 1

According to H1, a primed country stereotype will produce positive assimilation of beliefs to a target brand with increasing congruity. Moreover, according to H1 a primed country stereotype will produce no assimilation of beliefs to an incongruent target brand. First, Table 22 show a significant difference in judgments of target brand beliefs for the two groups that evaluated CDF Perfume depending on the type of primer being exposed. Thus, when Coco Chanel (high congruity/low comparison relevance) was primed more assimilation resulted than when Chanel N°5 (high congruity/high comparison relevance) was primed. Secondly, Table 22 show no variation in judgments of target brand beliefs for the two groups evaluating CDF Mountain Boots (low congruity/low comparison relevance), irrespective of which primer was exposed. Thus, at first sight it looks as if increasing primer-target congruity caused a positive impact on carry-over effects of country stereotype beliefs to a target brand. Moreover, it seems as if a null effect was produced in the low congruity condition. However, without control groups it can not be determined whether these effects actually reflect assimilation or contrast that are equally strong in both conditions.

According to H2, a country stereotype primer that is highly congruent and highly comparison relevance will produce contrast of primed stereotype beliefs, which will affect target brand beliefs negatively. Although the manipulation checks did not work as intended for the primer-target comparison relevance variable, it is still interesting to observe that the pattern of priming effects indicate that contrast might have occurred as predicted by H2. Table 22 shows a significant mean difference in judgments of target brand beliefs between the two groups that evaluated CDF Perfume. This finding can be interpreted in two ways. Either the group primed with Coco Chanel (non-target category primer) shows a positive assimilation effect or alternatively the group primed with Chanel N°5 (target-category primer) shows a negative contrast effect. It should be noted, however, that whether this result was caused by stronger assimilation for group B or by stronger contrast for group A was not made entirely clear by Experiment 1. The reason is that no control groups were included, which could serve as

reference points for the direction of the resulting priming effects. This deficiency in the experimental design will be dealt with in Experiment 2.

According to H3, less extreme country stereotype primers will strengthen the assimilative processes. Table 23 shows that respondents who perceived the primer to be less extreme showed a higher tendency to assimilate the primed country stereotype beliefs. This partly confirms that the assimilation effect increases with decreasing extremity of the country stereotype primers. An alternative explanation is that extreme country stereotype primers strengthen the contrastive process. Either way, Table 23 confirms that the assimilation effect increases with decreasing extremity of the country stereotype primers, or vice versa. Without control groups included it was impossible to determine the direction of the observed priming effects. Therefore, this limitation will be dealt with in Experiment 2. The findings from the tests of hypotheses are summarized in Table 24.

Table 24: Summery of tests of hypotheses

Variable	Hypotheses	Direction	Result
➢ Primer-target congruity	H1: There is a positive relationship between the level of primer-target congruity and the effect of a primed country stereotype on target brand beliefs.	+	➢ Supported
➢ Primer-target comparison relevance	H2: For a congruent target brand, a country stereotype primer low in comparison relevance produces a more positive impact on target brand beliefs than a primer high in comparison relevance.	+/÷	➢ Not tested
➢ Primer-target extremity	H3: The size of the assimilation effect is larger for a non-extreme primer than for an extreme primer.	+	➢ Supported

To conclude the findings of Experiment 1, the results seem to give fairly good support for H1 and H3. The pattern of priming effects also indicate that contrast can have occurred as predicted by H2. However, without sufficient manipulation checks and without control groups it is hard to verify whether the differences between groups in the high congruity condition are due to assimilation or contrast effects. There are at least two explanations for why a contrast effect seems to have occurred as predicted by H2. One explanation is that the manipulation checks did not grasp the primer-target comparison relevance construct correctly. Another explanation is that other variables can have caused the observed difference in evaluations of target brand beliefs

between the two groups evaluating CDF Perfume. Yet, the first explanation seems most plausible.

The experimental manipulation of primer-target comparison relevance produced unexpected manipulation checks of the primer-target comparison relevance variable. However, the experimental manipulations were designed to be quite similar to what has been done in classic priming studies (e.g., Herr et al. 1983; Stapel and Koomen 1997; 1998; Stapel et al. 1996; 1997). Therefore, the explanation may be found in the development of items used to measure primer-target comparison relevance. The items were made for the purpose of this study. As they have not been applied in previous studies they may be erroneous and result in imprecise manipulation checks. Moreover, the study was adapted to a marketing context and it appears that this adaptation made the experimental manipulations not perform as well as intended. Finally, it is difficult to measure the primer-target comparison relevance variable accurately when the manipulation checks are done after the completion of the priming task. Then the forgoing priming procedure might have influenced the scores. To improve this deficiency, pre-tests are run in place of the present manipulation checks in the next experiment.

Another factor that can have disturbed the manipulation checks is the visual nature of the primers or even the new marketing context to which the priming study is adapted. Irrespective of the reason for the unexpected manipulation checks, the finding is interesting as it probably illustrates that a *"boundary condition"* has been identified. This is theoretically interesting and can contribute to further knowledge about how the level of comparison relevance between a primer and a target impact the resulting priming effects. Because the pattern of observed priming effects appears to be as predicted, this invites a closer investigation of the antecedents and the underlying mechanism of what could be interpreted as an assimilation or a contrast effect. To verify whether assimilative or contrastive processes caused the observed priming effects, the inclusion of control groups is required in the next experiment.

CHAPTER 8

MODEL AND HYPOTHESES FOR EXPERIMENT 2

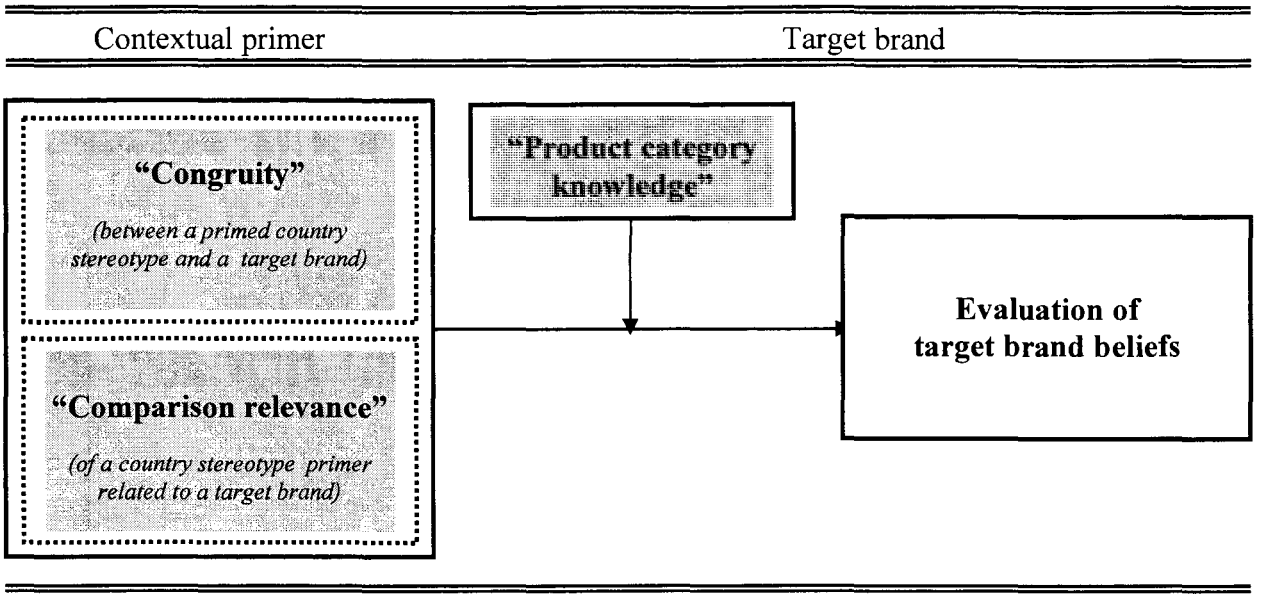
8.1. Chapter introduction

The aim of Experiment 2 is threefold: (1) to replicate the findings from Experiment 1 with control groups, (2) look at how product category knowledge may affect the observed priming effects and (3) include multi-item measures of brand personality traits. First, with control groups included it is possible to identify whether assimilative or contrastive processes caused the observed priming effects for CDF Perfume. Moreover, it is also possible to check whether the observed null-effect, observed in the low congruity and low comparison relevance condition (CDF Mountain Boots), was caused in reality by assimilative or contrastive processes that occurred in both groups. The product category knowledge variable is included because it is considered an important moderator of brand evaluations in consumer research (e.g., Srull 1983; Sujan 1985). Finally, the multi-item measure of personality traits is included to reveal whether the observed priming effect is maintaind when the overall target brand beliefs variable is decomposed to its core personality traits. A modified conceptual model will now be delineated. Chapter 8 is organized as follows: in section 8.2 an extended conceptual model is outlined and in section 8.3 some hypotheses are outlined for the low congruity and low comparison relevance condition and for the product category knowledge variable.

8.2. An extended conceptual model

The extended conceptual model still incorporates the two main manipulated variables that were found to partly drive priming effects in the preceding experiment: (1) "primer-target congruity" (Stapel and Koomen 1997) and (2) "primer-target comparison relevance" (Stapel et al. 1998). The new model focuses on how prior product category knowledge can affect the resulting priming effects as predicted by the standard-of-comparison model. For reasons discussed in Chapter 5, the target brand belief variable has been retained as the dependent variable. However, additional dependent measures of decomposed personality traits are also included in Experiment 2. Figure 3 depicts the extended model.

Figure 3: An extended conceptual model



The new model is based on the same logic and incorporates the same manipulated variables, primer-target congruity and target brand comparison relevance, as the previous model (see Chapter 5, section 5.2). However, in the new model the low congruity and low comparison relevance condition is addressed more precisely. The new model also focuses on the potential influence of product category knowledge. This variable has been included because previous priming studies have shown that consumer's prior product category knowledge can affect the resulting priming effects (e.g., Yi 1993; Wänke et al. 1998).

There are at least two opposing theoretical arguments for how consumer expertise can influence effects of contextual priming. According to Wänke et al. (1998) novices are more prone to be influenced by contextual variables than experts (e.g., Bettman and Sujan 1987; Rao and Monroe 1988; Bikart 1993; Mandel and Johnson 2002). On the other hand, according to Herr (1989), experts are more influenced by contextual priming than novices are (see also Mandel and Johnson 2002; Chapman and Johnson 1999). Because opposing results are reported in the priming literature, and because consumer ability to evaluate ficticious target brands most likely will influence the observed priming effects, the consumer expertise variable has been included in Experiment 2. The primer-target congruity variable and the primer-target comparison relevance variable are still believed to determine whether primed country stereotype beliefs are assimilated to, or contrasted away from, a target brand. However, product category knowledge is predicted to strengthen or weaken the resulting priming effects. Some hypotheses derived from the extended conceptual model are outlined below.

8.3. Hypotheses

The hypotheses H1 and H2, which were outlined in Chapter 5, will be tested again. Therefore, H1 and H2 are merely repeated below. The argumentation for the hypotheses is outlined in Chapter 5, (see Chapter 5, section 5.3).

H1: *There is a positive relationship between the level of primer-target congruity and the effect of a primed country stereotype on target brand beliefs.*

H2: *For a congruent target brand, a country stereotype primer low in comparison relevance produces a more positive impact on target brand beliefs than a primer high in comparison relevance.*

8.3.1. Low congruity and low comparison relevance

The findings of Experiment 1 revealed no differences in evaluations between the two experimental conditions in which the primers were low in congruity and low in comparison relevance. This was interpreted as a null effect caused by an "early exit". However, without control groups included, it could not be determined whether this null effect in reality was an assimilation effect or a contrast effect that had occurred in both groups. To address this issue a new hypothesis is now outlined.

It is likely that a different cognitive process can occur when incongruent and comparison irrelevant product information is primed as input in assessment of a target brand. In this situation, some consumers would be more likely to use extrinsic cues (i.e., primed information) to solve the product evaluation task. The abundant literature in consumer research indicates that some individuals conduct heuristic processing to make product judgments quickly and efficiently (e.g., Mandler 1982; Meyers-Levy and Tybout 1989; Cacioppo and Petty 1982; Petty et al. 1983). The dual process models of persuasion, the Elaboration Likelihood Model and the Heuristic-Systematic Model (Chaiken 1980) identify heuristic processing as one of two cognitive processes, which can be involved in accepting a persuasive message. These models distinguish between the two models of persuasion, depending on the perceiver's motivation and ability to process. Under high motivation conditions, consumers are believed to engage in a detailed processing of the persuasive message that involves thoughtful examination of relevant message argument. In contrast, under low motivation, a less effortful mode of processing is anticipated, and consumers are likely to form judgments in cognitively simple ways by minimizing effortful

processing. The ELM model and the HSM model refers to heuristic processing as a peripheral processing route, which is applied when consumers are neither *able* nor *motivated* to conduct systematic processing (e.g., Petty and Cacioppo 1979; Cacioppo and Petty 1982; Petty et al. 1983; Meyers-Levy and Malaviya 1999). Under low ability or low motivation, subjects may try to form their judgments with a minimum effort, and a primed country stereotype offers a basis for doing so (Maheswaran 1994). In contrast, highly able and highly motivated consumers are less likely to use cognitive short cuts in forming their evaluations.

The heuristic processing perspective has also been adapted to research of contextual priming effects. Meyers-Levy and Sternthal (1993) addressed this issue in one study where they divided consumer respondents into two categories: "clarifiers" and "simplifiers" (see also Meyers-Levy and Tybout 1989; 1997). They referred to clarifiers as "people who react to incongruity by effort-fully reexamining their beliefs and performing processing that helps clarify the situation". Furthermore, they referred to simplifiers as "people who appear to expend little cognitive effort in situations with incongruent information. Instead these individuals prefer to simplify discrepancies and keep out incongruous elements by avoiding, denying or distorting them" (Meyers-Levy and Sternthal 1993, p. 361). The process conducted by the "simplifiers" in this priming study seems to be closely related to the conceptualization of heuristic processing in consumer research. It therefore seems appropriate to apply the notion of heuristic processing to a study of contextual priming effects.

Low congruity and low comparison relevance of a primer in relation to a target brand may be conceptualized as a complete absence of relatedness between a primer and a target brand. In this condition, respondents would be unable to identify matching attributes or features between the primed information and the target brand. According to Mandler (1982), respondents are not able to resolve the incongruity in an extremely incongruent condition. Nor are they motivated to apply substantial cognitive resources into an unsolvable task (e.g., Mandler 1982; Meyers-Levy and Malaviya 1999). They therefore "give up" resolving the priming task in an analytical manner. As an alternative heuristic processing is carried out (see also Meyers-Levy et al. 1994). If this type of processing is applied, an incongruent and comparison irrelevant country stereotype primer can "color" interpretations of the target brand, but only temporarily. However, as consumers are neither able nor motivated to elaborate on the assimilated features, they will not be contrasted at a later stage. Hence, when an incongruent and comparison irrelevant primer is exposed, a temporary assimilation effect is expected.

H4: For an incongruent target brand, a country stereotype primer low in comparison relevance produces a positive assimilation effect on target brand beliefs.

8.3.2. The impact of product category knowledge

The impact of contextual priming may be strong or negligible depending on the characteristics of the audience (Yi 1993). That is, some people may be more susceptible to contextual priming than others. Several priming studies have addressed how individual characteristics like differences in need-for-cognition (e.g., Meyers-Levy and Sternthal 1993; Meyers-Levy and Tybout 1989), primer familiarity (Herr 1989), and expertise about the target stimulus (e.g., Bettman and Sujan 1987; Yi 1993; Block and Johnson 1994; Li and Wyer 1994; Stapel et al. 1996; 1998; Staple and Koomen 1997; Wänke et al. 1998, Mandel and Johnson 2002) can moderate the effects of contextual priming.

Several studies show that consumer's prior knowledge about the product category they are set to evaluate is a crucial individual characteristic that can moderate the resulting priming effects (e.g., Yi 1993; Wänke et al. 1998). The product category knowledge variable is extensively studied and is considered an important moderator of product or brand evaluations (e.g., Srull 1983; Sujan 1985). According to Wänke et al. (1998) a rich litareture on expertise in consumer research generally predicts that nonexperts are more prone to be influenced by contextual variables than experts (e.g., Bettman and Sujan 1987; Rao and Monroe 1988; Bikart 1993; Mandel and Johnson 2002)[25]. However, some studies show the opposite result. For instance, Herr (1989) found that experts were more influenced by contextual priming than novices were (see also Mandel and Johnson 2002; Chapman and Johnson 1999). Because opposing results are reported in the priming literature, better understanding of how consumer expertise might mitigate or enhance priming effects is needed. In Experiment 2, the product category knowledge variable is examined to address this issue.

Consumer expertise is addressed at the product category level because fictitious (non-existing) target brands are applied. Consumers cannot be familiar with a fictitious brand, but they can have prior knowledge about the product characteristics being relevant in encoding and judgment of a target product category. It therefore seems reasonable that consumers' judgments could be influenced differentially by priming as a function of the prior knowledge an individual hold about the product category of a fictitious target brand. After all, priming effects should depend ultimately upon the existence of a target product category stored within memory (e.g.,

[25] Compared to novices, experts characteristically possess a rich and well-organized knowledge structure in a specific domain (see Alba and Hutchinson, 1987). Because they have a relatively large amount of relevant information chronically accessible in memory, the impact of additional information that is rendered temporarily accessible by the primer should be relatively weak. Moreover, it is often assumed that experts are more confident in their judgments and thus less susceptible to contextual cues. For novices, on the other hand, only a small amount of information is chronically accessible. Accordingly, the representation that they form of the target is likely to be dominated by the temporarily accessible primed information, resulting in pronounced priming effects.

Herr 1989; Wänke et al. 1998; Mandel and Johnson 2002). This is evident from the definition of contextual priming effects (see Chapter 4, section 4.2), which notifies that it is the type and amount of knowledge about: (1) the primer and (2) the target object that drive contextual priming effects. Experts and novices will vary in their ability to operate on memory-based evaluations (Mandel and Johnson 2002), which is the nature of the process occurring when primed information is applied to encode and judge a fictitious target brand. Although this is a simple assumption, its truth is poorly documented in the priming literature (Herr 1989).

It should be noted that the present experiment examines product category knowledge, which is conceptually distinct from product or brand familiarity (see Zinkhan and Muderrisoglu 1985 for a test of convergent and discriminant validity of familiarity). Familiarity is defined as the number of product-related experiences that have been accumulated by the consumer (Alba and Hutchinson 1987). Alba and Hutchinson (1987) define familiarity as the consumer's number of purchases or experiences with the product class and expertise as the ability to perform product related tasks successfully. In general, product familiarity is a necessary but insufficient condition for consumer knowledge or expertise. Product knowledge can be operationally defined either in terms of what is actually stored in memory (objective knowledge) or in terms of what individuals perceive that they know (subjective knowledge; e.g., Brucks 1985)[26]. In this study, the moderating influence of subjective product category knowledge is investigated. It should be noted that the present experiment does not address prior primer knowledge, even though the definition of contextual priming includes both prior knowledge about the primer and about the target brand. The argument for this is that the information evoked by the primers used in the present experiments is carefully controlled. In contrast to the fictitious target brands, which are presented ambiguously, the ads of the primers are carefully designed and pre-tested to evoke the same country stereotype beliefs.

Consumers apply primed information to encode and later to judge a product when the primer evokes information that is related to (matches) the prior knowledge stored in memory about the target product category (Yi 1993). That is, priming effects on the encoding of ambiguous information about a fictitious target brand require that there be some minimum level of perceived covariation (congruity) between the primed information and one or more relevant product attributes/features (Yi 1993). Consumers can have prior knowledge stored in memory about which product characteristics, benefits and consequences a target product stands for. Experienced consumers have a more developed knowledge structure about the possible

[26] What people perceive that they know is likely to depend on what they actually know as well as their self-confidence in the amount of knowledge held in memory (Park and Lessig 1981; Rao and Monroe 1988).

relationships among elements of a product category (Rao and Monroe 1988)[27]. For example, consumers who use automobiles may come to learn certain relationships among engine size, fuel efficiency and safety. This knowledge should allow consumers to encode ambiguous information about, for instance, a fictitious target brand in terms of related attributes/features, being evoked by a primer (Yi 1993). Inexperienced or novice consumers would lack those knowledge structures that represent relationships among product attributes or features (Herr 1989). Consequently, they would neither be able to encode nor to judge primed information in terms of related product attributes/features of a fictitious target brand. Based on this line of reasoning Herr (1989) argue that experts would be more able to identify matching attributes/features between a primer and a product category, and that they would have more developed comparison standards stored in memory than novices. According to this perspective, respondents' prior knowledge would determine whether consumers perceive a primer to be congruent and comparison relevant in relation to the product category of a fictitious target brand. Because the level of primer-target congruity and the level of primer-target comparison relevance can only be determined from the viewpoint of the audience's prior product category knowledge, this variable presumably will moderate the extent to which these variables produce divergent priming effects.

From this discussion it is evident that the product category knowledge variable primarily is believed to determine consumer ability (1) to see matches between primed information and the product attributes/features of a target brand, and (2) to use the matching dimensions as interpretation frames to encode, and later as comparison standards to judge the target brand. These factors are also believed to be the main antecedents of assimilation and contrast effects as predicted by the standard-of-comparison model (e.g., Stapel and Koomen 1996; 1997; Stapel et al. 1997; 1998). On the basis of this argumentation, some hypotheses of how product category knowledge can moderate the priming effects observed in Experiment 1 are now outlined.

The high congruity and low comparison relevance condition: The influence of primed information depends on how well it matches individuals' prior knowledge about a target brand. Primed information is more likely to be used to encode a target product category when it matches the product on specific attributes or features (e.g., Herr 1989; Meyers-Levy and Sternthal 1993; Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998). Increasing product category knowledge stimulates consumers' ability to see matches between the primed information and information stored in memory about the target product category. Extensive

[27] Bettman et al. (1986) suggest that increased product knowledge reinforces the correlations between product attributes and summary cues (see also Jagacinski 1994 and Johanson and Russo 1984).

priming research shows that more matches identified in the encoding of a fictitious target products produce stronger assimilative processes while more mismatches produce weaker assimilative processes (e.g., Bettman and Sujan 1987; Bikart 1993; Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998). Thus, consumers with high product category knowledge produce stronger assimilation of primed country stereotype beliefs to the target brand when the match between the primed information and the prior product category knowledge is high. Therefore, the prior knowledge variable is particularly believed to stimulate consumers' ability to see matches between a primer and a target product (e.g., Muthukrishnan and Weitz 1991; Wänke et al. 1998). Moreover, a larger number of identified matches produces stronger assimilation (e.g., Bettman and Sujan 1987; Bikart 1993).

According to the standard-of-comparison model (e.g., Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998), in conditions with high congruity and low comparison relevance assimilation is most likely. Non-target category primers are comparison irrelevant and, thus, cannot be used when setting a standard in the judgment stage. However, congruent non-target category exemplars can lead to assimilation (e.g., Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998). Experts on the target product category are able to see more matching dimensions between the primed information and the target brand, which they can use to interpret a fictitious target brand in the encoding stage. Hence, a stronger assimilation effect is predicted for experts who are more able to see matching attributes/features between a primer and a target brand than for novices. Hence:

H5a: For a congruent and comparison irrelevant primer, the size of the assimilation effect is larger for experts than for novices.

The high congruity and high comparison relevance condition: The standard-of-comparison model hypothesizes that only congruent target-category primers, which also are sufficiently comparison relevant, can produce contrast by comparison (e.g., Stapel and Koomen 1997; 1998 Stapel et al. 1996; 1997; 1998). In the high congruity and high comparison relevance condition, the stereotyped beliefs are first assimilated in the encoding stage, but can then be contrasted in the judgment stage. Experts on the target product category are able to see more matching dimensions between the primed information and the target brand. Moreover, experts are also more able to see differences in extremity of the primed construct. For a target category exemplar, the matching dimensions should also be more comparison relevant. Accordingly, a stronger contrast effect should result for experts than for novices in this condition.

Several priming studies support this perspective. In one study Mandel and Johnson (2002) found that experts were more likely than novices to operate on memory based evaluations, so they may have more information consistent with a prime available for judgments. Chapman and Johnson (1999) have also shown that making more information available can increase the effects of comparison anchors, which they argue operate through a priming mechanism. According to Herr (1989), experts are more able to judge the target brand in an immediate and automatic manner when they are primed with category exemplars. The reason is that experts have more developed comparison anchors than novices have, against which a fictitious target brand can be compared and contrasted (Herr 1989). Herr also argues that the more automatic the comparison process is in the judgment stage, the stronger the predicted contrast effect. Experts have more developed and accessible comparison standards available in memory. Consequently, the contrast effect caused by standard-of-comparison processes of matching attributes/features would be more pronounced for experts than for novices. Hence, in situations with a highly congruent and highly comparison relevant primer the strength of the contrast effect, caused by automatic standard-of-comparison processes, will increase for experts and decrease for novices. Hence:

H5b: For a congruent and comparison relevant primer, the size of the contrast effect is larger for experts than for novices.

The low congruity and low comparison relevance condition: The low congruity and low comparison relevance condition is conceptualized as absence of relatedness between a contextual primer and a target brand. In this condition respondents are unable to identify matches between the primer and the fictitious target brand, which later could be compared and contrasted. Accordingly, when incongruent and comparison irrelevant information is primed it may produce no change in subsequent judgments (Devine 1989). According to the inclusion-exclusion model, (e.g., Martin 1986; Schwarz and Bless 1992a) primed information that is clearly irrelevant to a judgment task is ignored and does not influence judgments of a target. Thus, low congruity and low comparison relevance is not predicted to cause assimilation of beliefs and the inclusion-exclusion model describes this as an "early exit" (Schwarz and Bless 1992a). An interesting question is, however, the extent to which this "early exit" hypothesis holds for both experts and novices.

In the low congruity and low comparison relevance condition an alternative view of how product category knowledge may influence contextual priming effects seems relevant. Some studies have found priming effects for incongruent target objects, but only for novices (e.g.,

Meyers-Levy and Sternthal 1993; Sanbonmatsu, Kardes, Posavac and Houghton 1997).[28] Novices lack the knowledge structures that represent relationships among product category attributes and features (Herr 1989). Consequently, novices are less able to connect primed information to interrelated product attributes (e.g., Srull and Wyer 1979; Yi 1993). According to Mandler's (1982) congruity theory, novices should therefore not be able to resolve the incongruity between an incongruent primer and a fictitious target brand. Instead of evaluating the target brand on its inherent attributes and features, they "give up" the effort to evaluate the target brand in an analytical manner. Instead they apply peripheral cues from the context (like primed information) and conduct heuristic processing, which affects their interpretation of the fictitious target brand. Several priming studies support that this type of assimilation effect can be a likely outcome for individuals who are "cognitive simplifiers" such as novices (e.g., Bettman and Sujan 1987; Meyers-Levy and Sternthal 1993). In one study Meyers-Levy and Sternthal (1993) found that "cognitive simplifiers" engage in assimilation under conditions of low feature overlap due to heuristic processing. As product category knowledge decreases, the propensity to process heuristically increases. Thus, heuristic processing, which is primarily conducted by novices, can result in assimilation of information evoked by an incongruent and comparison irrelevant primer to a target brand (e.g., Srull and Wyer 1979; Meyers-Levy and Sternthal 1993; Yi 1993). Yet, then the assimilation effect only appears as a superficial effect (Han 1989; Leuthesser, Kohli and Harich 1995).

Recent research by Sanbonmatsu, Kardes, Posavac and Houghton (1997) suggests that information about unique (incongruent) primer attributes, which cannot first be assimilated and then later contrasted in a standard-of-comparison manner, can still affect encoding of a fictitious target brand. Simply the increased awareness that the target brand lacks information about the primed attributes can promote inferences about the target brand through which an assimilation effect is produced (Sanbonmatsu et al. 1997). In such instances, the primed country stereotype beliefs can "color" target brand evaluations, but only temporarily. However, because novices are not able to compare and contrast the unique (incongruent) primer attributes/features with attributes/features of the target brand, the assimilated attributes cannot be contrasted in the judgment stage. Hence, when a primer low in congruity and low in comparison relevance is

[28] It is often assumed that experts are more confident in their judgments and thus less susceptible to contextual cues. Drawing on differences in the amount of chronically accessible information and different cognitive processes, it is predicted that smaller context effects are predicted for experts than for non-experts (Bettman and Sujan 1987; Bikart 1993). Compared to non-experts, experts characteristically possess a rich and well-organized knowledge structure in a given domain (see Alba and Hutchinson, 1987). Because they have a relatively large amount of relevant information chronically accessible, the impact of additional information that is rendered temporarily accessible by the immediate context should be relatively weak. For non-experts on the other hand, only a small amount of information is chronically accessible. Accordingly, the representation that they form of the target is likely to be dominated by the temporarily accessible information, resulting in pronounced priming effects.

applied, a temporary assimilation effect will result, which is larger for novices than for experts. Hence:

H5c: For an incongruent and comparison irrelevant primer, the size of the assimilation effect is larger for novices than for experts.

CHAPTER 9

EXPERIMENT 2

9.1. Chapter introduction

In this chapter, Experiment 2, which was conducted to test the hypotheses put forward in Chapter 8, is presented. The chapter is organized as follows. First, the choice of experimental variables is delineated and the experimental procedure is explained. Then the data collection instrument is presented and aspects of the sample selection are discussed. After that, the descriptive statistic is presented as well as the correlations between the experimental variables. Then the tests of ANOVA assumptions are delineated. Thereafter the results of the manipulation checks are presented and finally the results of the tested hypotheses are reported and discussed.

9.2. Design

In Experiment 2, which was an extension of Experiment 1, the hypotheses outlined in the preceding chapter were tested. The major focus of Experiment 2 was to replicate the findings of Experiment 1 with control groups. The focal point was what types of primers would produce comparative contrast effects rather than assimilation effects. This experiment also focused on whether or not the core personality traits underlying French finesse were affected by the primed country stereotype. In addition, Experiment 2 focused on whether the prior product category knowledge would influence the size of the observed priming effects. Control groups were included but otherwise the design of Experiment 2 was nearly equal to Experiment 1 (see Chapter 7, section 7.2. to 7.5). Just as the two previous experiments, Experiment 2 was a 2 x 2 reduced factorial between-subject design with two factors: (1) primer-target congruity (high/low) and (2) primer-target comparison relevance (high/low). For a further description of the experimental design, see Chapter 7, section 7.2.

9.2.1. Stimulus primer

Also in this experiment the Chanel brand was used to develop contextual primers and the same visual exemplars - Chanel N°5 and of Coco Chanel - (one product exemplar and one person exemplar) were exposed to manipulate the level of primer-target congruity and primer-target comparison relevance. The choice of primers was based on the same considerations as in the preceding experiment (see Chapter 7, section 7.2.1.) and the manipulations of primer-target congruity and primer-target comparison relevance were the same as in Experiment 1. To

strengthen the prime, subjects were asked to evaluate the primers on the extent to which they signaled the country stereotype of French finesse. The two primers were tested to ensure that they evoked the same country stereotype. No difference was found between the two contextual primers in ability to signal French finesse ($F = .61$; $p = .44$)[29]. Primer brand knowledge was also assessed not to differ across the experimental groups. An ANOVA test was run by combining the two groups exposed to the Chanel N°5 primer and the two groups exposed to the Coco Chanel primer. The test showed that the groups did not differ in primer brand knowledge ($F = 0.62$; $p = .61$).[30] These tests were run to ensure that the primers would signal the same in each experimental condition and that the primer brand knowledge variable did not confuse the results.

9.2.2. Target brands

The choice of target brands was also based on the same considerations as in Experiment 1 (see Chapter 7, section 7.2.2). The chosen target product categories were perfume and mountain boots. Again, in this experiment, the ads containing photos of the target product categories, and the non-existent brand name "CDF" was attached to the product category label. Ambiguity of the target brands was manipulated by limiting the attribute information. Table 25 depicts the relations between the exemplar primers and the target brands.

[29] The tests were run by combining the two groups exposed to Chanel No5 and the two groups exposed to Coco Chanel. The respondents participated in the main experiment, as the test was a part of the priming task. Univariate ANOVAs were run to test the pair-wise mean differences between these two groups in evaluations of how well the two primers represented the country stereotype of French finesse. Three items, which were developed based on the congruity measures used in the main experiments (see Table 14) were utilized to measure how well the two visual exemplar primers represented French finesse. These were: "Please indicate the degree to which primer X *fits well* with French finesse", "Primer X has *many similarities* with French finesse", and "Please indicate the degree to which primer X *matches* French finesse".

[30] Univariate ANOVAs were run across the four experimental groups to test the mean differences in subjective knowledge about the Chanel brand, which was used as the contextual primer. Four items, which were based on the subjective knowledge measures developed by Brucks 1985 (see also Flynn and Goldsmith 1999), were utilized to measure the primer brand knowledge variable. These were: "I know a lot about the Chanel brand", "I do not feel very knowledgeable about the Chanel brand", "Among my friends I am most knowledgeable about the Chanel brand", and "Compared to most other people I have more knowledge about the brand Chanel".

Table 25: Relations between two contextual primers and two target brands

	Target brands	
Contextual primers	CDF Perfume	CDF Mountain Boots
Chanel N°5	*high congruity/ high comparison relevance*	*low congruity/ low comparison relevance*
Coco Chanel	*high congruity/ low comparison relevance*	*low congruity/ low comparison relevance*

9.3. Experimental procedure

The procedure of Experiment 2 was fairly identical to that in Experiment 1 (see Chapter 7, section 7.3). Student respondents, who had just finished an introductory marketing class, were gathered in a large lecture theater. The subjects were requested to participate in a market research project and were told that a lottery would be conducted in which 15 CDs would be drawn at the end of the experiment and awarded between them. The experimental material was randomly assigned to the participants and the researchers gave instructions in plenum on the time available for examining the contextual primers and for judging the target brands. The experimental guidelines were further described in the questionnaire. Measures of product category knowledge were included in the questionnaire as measures of potential moderators of the hypothesized priming effects. Apart from these modifications, the experimental procedure was a replication of Experiment 1.

9.4. Data collection instrument

A booklet was developed containing the experimental material, which included the modified questionnaire. This material was randomly assigned to the respondents within the experimental groups. The cover page of each booklet contained instructions requesting participants to go through the pages in the right order, and not to look back at the previous pages. In this way, the questionnaire was designed to guide the priming task. As in Experiment 1, the target brand was evaluated on a set of established scales. For all the study variables, an additive measure was constructed by aggregating the mean scores on each item, and dividing by number of items (i.e. $S = \sum_{i=1}^{n} S_i / n$, where S = score, S_i = score item, and n = number of items).

9.4.1. Measures of dependent variables

To record the priming effects on overall target brand beliefs, two measures of the degree to which "French finesse" was connected to the target brands were included (see Chapter 7, section 7.4.1). Because Experiment 2 was an extension of the preceding one, only page references are given for descriptions of the items. However, for the two dependent variables, items, task instructions, alphas and factor scores are reported in Table 26.

Table 26: Instructions, dimensionality and internal consistency of dependent variables

Items	h^2	Factor 1	- *Eigenvalue* - *% variance explained* - *Alpha*	
			common factor	individual factors
1. Items of target brand beliefs:				
Item a* - totally disagree/totally agree	.568	.753*		1.75
Item b - totally disagree/totally agree	.504	.710		87.5 %
				α = .85
2. Items of the multi-item personality trait measure:			4.23	
			61.1 %	
Item a - very/not very elegant	.712	.844	α = .89	
Item b - very/not very sophisticated	.641	.800		
Item c - very/not very exclusive	.609	.780		3.61
Item d - very/not very glamorous	.724	.851		72.2 %
Item e - very/not very professional	.521	.722		α = .90

Note: * see p. 75 for item descriptions. Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

A factor analysis was run combining the two target brand beliefs items and the five personality traits that loaded on "French finesse". This analysis showed one distinct factor. Varimax rotation was applied and Principal Components was the extraction method. The commonalties (h^2) were fairly high, which indicate that substantial parts of the variance in the original variable were captured by the factor solution. Moreover, the Eigenvalue loadings showed that the dependent variable loaded strongly on one factor (4.23). Furthermore, the level of variance explained was acceptable (61.1%). Calculations of individual Chrombach's alfas showed that the two target brand belief variables satisfied the requirements of internal consistency ([α =.89] > α =.70).

To record priming effects on the multi-item measure of personality traits, 11 individual personality traits were measured. The set of items used to record priming effects on the multi-item measure of brand personality was selected from Aaker's Brand Personality Scale (Aaker 1997). The personality traits included five traits that were strongly descriptive of the country

stereotype of French finesse. Six irrelevant items were also included, which were selected from the two brand personality factors "ruggedness" and "competence" (Aaker 1997). These items matched some of the target brands but were not descriptive of French finesse. As recommended by Stapel et al. (1997), the inclusion of the six irrelevant personality traits, which did not mirror "French finesse", would decrease the possibility that participants would become suspicious that the concept of interest was related to French finesse. Related and unrelated rating scales were interspersed with each other. Participants rated the target brands along these eleven personality adjectives on a 7-point semantic differential scale. The question was phrased: "Please rate the extent to which the following personality traits are characteristic of your perceptions of target brand X".

9.4.2. Measures of manipulated variables

To assess whether the experiment worked as planned, manipulation checks of (1) primer-target congruity and (2) primer-target comparison relevance were included. Just as in the prior experiment, three items were used to measure each of these variables (see Chapter 7, section 7.4.2.). For the two manipulation checks, items, measure scales, alphas, and factor scores are reported in Table 27.

Table 27: Instructions, dimensionality and internal consistency of experimental manipulations

Items	h^2	Factor		- *Eigenvalue* - % *variance explained* - *Alpha*
		1	2	
1. Primer-target congruity:				3.59
Item 1a* - totally disagree/totally agree	.853	.866		59.8%
Item 1b - not at all matching/highly matching	.853	.882		Σ = 59.8%
Item 1c - little in common/ much in common	.763	.847		α = .90
2. Primer-target comparison relevance:				.99
Item 2a* - very difficult/very easy	.839		. 860	16.5 %
Item 2b - irrelevant/relevant	.411		. 553	Σ = 76.2 %
Item 2c - totally disagree/totally agree	.853		.912	α =.82

Note: Factor scores < 0.30 are reported. * see p. 76 for item descriptions. Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

A factor analysis was run combining the items of the manipulated variables. Varimax rotation was applied and Principal Components was the extraction method. Most of the commonalties (h^2) were high. Moreover, the Eigenvalue loading showed that the manipulated variables loaded on one factor each (3.59 and 0.99). However, the primer-target comparison relevance variable showed a weak Eigenvalue (slightly below one). As discussed earlier (see Chapter 7, section

7.4.2.), the simplified rule of thumb that only factors with Eigenvalues greater than 1 should be extracted is sometimes flawed (Hair et al. 1998). Hair et al. (1998) argue that a "Scree Test" should be employed to identify the optimum number of extracted factors. The point at which the curve of Eigenvalue plots begins to straiten out is considered as an indication of the maximum number of factors to extract (Hair et al. 1998). Here a clear cut-off point was identified after the primer-target comparison relevance factor (the Eigenvalue diminished from .99 to .70). Therefore, as the deviation from 1 was somewhat negligible, this low Eigenvalue loading was not considered a limitation. Furthermore, the level of variance explained was acceptable for both the manipulated variables (59.8% and 16.5%). Calculations of individual Chrombach's alfas showed that both the manipulated variables satisfied the requirements of internal consistency ([α =.90 / α =.82] > α =.70).

9.4.3. Measures of product category knowledge

The product categories of the target brands were chosen to be relevant and fairly well known to the student respondents. Product category knowledge can be operationally defined either in terms of what is actually stored in memory (objective knowledge) or in terms of what individuals perceive that they know (subjective knowledge; e.g., Brucks 1985). As priming effects are mostly memory-based evaluations (Mandel and Johnson 2002), they are by nature determined by the objective knowledge that consumers have stored in memory. To unveil objective knowledge it is common to record ongoing thought processes by use of thought protocols. However, in this study this procedure would disturb the fairly automatic priming mechanisms subject to investigation and was therefore avoided (as recommended by e.g., Yi 1990a). Instead, items of subjective knowledge were applied as indirect measures of objective knowledge. This was considered justifiable, as what people perceive they know depends on what they actually know and their self-confidence for knowledge held in memory (Park and Lessig 1981; Rao and Monroe 1988).

The items used were based on a scale developed by Brucks (1985), which was designed to reveal subjective product knowledge (see also Flynn and Goldsmith 1999). Product category knowledge was measured by four items: (1) "I know a lot about product X", (2) "I do not feel very knowledgeable about product X", (3) "Among my friends I am most knowledgeable about product X", and (4) "Compared to most other people, I have more knowledge about product X". All items were measured on a 7-point Likert type scale with the ending points "totally disagree" and "totally agree". These items were averaged to form a product category knowledge index (α =

0.79). The mean scores on the four product category knowledge variables should not vary significantly across the target brands. In a similar way as in a study by Meyers-Levy and Sternthal (1993) a median split was used, where subjects in the experimental and the control groups were classified as experts and novices. For all the moderating variables measure scales, task instructions, alphas and factor scores are reported in Table 28.

Table 28: Instructions, dimensionality and internal consistency of moderating variable

Items	h^2	Factor 1	- *Eigenvalue* - % *variance explained* - *Alpha*
3. Product category knowledge			
Item 1a: I know a lot about product category X	.764	.874*	2.75
Item 1b: I do not feel very knowledgeable about product category X	.679	-.824	68.9 % $\alpha = 0.79$
Item 1c: Among my friends I am most knowledgeable about product category X	.633	.796	
Item 1d: Compared to most other people, I have more knowledge about product category X	.678	-.823	
(Modified from Brucks 1985; Flynn and Goldsmith 1999)			

Note: * Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

A factor analysis combining the four items of the product category knowledge variable was run. Varimax rotation was applied and Principal Components was the extraction method. Most of the commonalties (h^2) were high. Moreover, the Eigenvalue loadings showed that the moderating variable loaded on one factor (2.75). Furthermore, the level of variance explained was acceptable for this variable (68.9%). Calculation of Chrombach's alfa showed that this variable satisfied the requirements of internal consistency ([$\alpha = 0.79$] > α =.70).

9.5. Sample

The sample consists of 273 undergraduate business students from the Norwegian School of Economics and Business Administration (NHH) in Bergen. Five of the questionnaires had to be removed due to non-response biases, leaving a total of 268, including the control groups. Students agreeing to participate were randomly assigned to the seven experimental conditions (2 x 2 + 2 control groups + 1 group (60 students) for pre-testing of stimuli). A homogenous student sample was preferred, as homogenous samples are better able to ensure that the experimental treatment influences all participants equally, which increases the chance of observing existing

causal relations. Of the total sample, 81 students were randomly assigned to the two control groups. These respondents were not exposed to the contextual primers but were only asked to evaluate the target brands.

Conventional rules of thumb indicate that 30 subjects per cell are appropriate in order to meet the assumptions of statistical analyses performed on experimental data such as ANOVA (e.g., Sawyer and Ball 1981). As discussed earlier, the sample size partly determines the statistical power of the investigated effects (see Chapter 7, section 7.5.). In general, studies investigating effects of exemplar priming operate with samples sizes ranging from 25 to 35 respondents in each condition (e.g., Stapel and Koomen 1997; 1998; Stapel et al. 1997; 1998). Therefore, it was considered sufficient to recruit students to obtain cell sizes of about 30 to 35. Approximately 32 subjects were obtained in each cell for the main experiment, and about 29 subjects were obtained in each of the control groups. Students agreeing to participate were randomly assigned to the four experimental priming conditions. The total sample of participants constituted of 52 % male and 48% female students. Subjects were randomly distributed to the experimental conditions (CDF Perfume: $F = .355$, $p = .768$; CDF Mountain Boots: $F = .988$, $p = .324$).

9.6. Descriptive statistics

Prior to conducting a detailed hypothesis testing of the data, it was considered appropriate to run simple tabulations of frequencies and descriptive statistics. Table 29 in Appendix IV summarizes the descriptive statistics of all the study variables for the entire sample of Experiment 2. All means, maximum and minimum values seemed reasonable and they did not seem to be affected by any indices or other errors. The standard deviations were reasonably high for all the study variables with the lowest Sd. = 0.63 (product category knowledge) and the highest Sd. = 1.36 (primer-target comparison relevance). The standard deviations of the dependent variables: (1) target brand beliefs and (2) the multi-item measure of personality traits ranged from [1.10 - 1. 25]. Even though the respondents were reasonably consistent in their evaluations of the study variables, the numbers still indicated that there was enough variation left in the data to discriminate between subjects. Distributional aspects of the study variables showed acceptable values on skewness for almost all variables below [+1, -1] (except primer-target comparison relevance [1.13] and product category knowledge [-1.37]). The study variables also showed acceptable values below [+2, -2] on the kurtosis scores for all variables except for product category knowledge (2.86). Therefore, values for skewness and kurtosis did not indicate any

serious threat to the requirement of normality in the distribution of study variables (Bollen 1989). Only the product category knowledge variable was both greater than +/-1 in skewness and greater than +/- 2 in kurtosis. This variable was not, however, crucial for the experimental manipulations as it was only regarded as a potential moderating variable.

9.7. Correlation between experimental variables

Several interesting correlations were found and some of these are addressed more closely in the discussion of hypothesis testing. Here, the focus is on correlations that are appropriate to the choice of statistical test techniques. Some particularly interesting intercorrelations were found between the dependent measures of (1) target brand beliefs and (2) the multi-item measure of personality traits. The matrix of correlations is shown in Table 30 in Appendix IV. The target brand belief variable was significantly correlated with the multi-item measure of personality traits variable ($r = .55$; $p < .001$). The target brand beliefs variable was also positively correlated with the two manipulated variables ($r = .44$; $p < .001$ and $r = .21$; $p < .001$), but not with the product category knowledge variable. The multi-item measure of personality traits was significantly correlated with the primer-target congruity variable ($r = .42$; $p < .001$), but not with the primer-target comparison relevance variable. Moreover, the multi-item measure of personality traits was positively correlated with the product category knowledge variable ($r = .20$; $p < .01$). The primer-target congruity and the primer-target comparison relevance variables were, as expected, positively correlated ($r = .57$; $p < .001$). This is logical as both variables describe some kind of comparison between the contextual primer and the target brand. The identified significant correlations are relevant as they can help to identify the extent to which the experimental manipulations work as planned, which seemed to be confirmed.

9.8. Test of assumptions

For reasons discussed earlier (see Chapter 7, section 7.8.), univariate analyses of variance were found most appropriate to test the hypotheses of Experiment 2. The three main assumptions that Keppel (1982) argues should be met in order to use ANOVA were fulfilled. Independence of error was met by the experimental design, as subjects were randomly assigned to the experimental groups. The descriptive statistics showed that the second assumption was met as none of the study variables were seriously skewed or peaked. Across all variables, the kurtosis scores showed absolute values of less than two and the principal skewness scores showed

values of less than one (except the moderating variable). This led to the conclusion that the present data did not constitute a serious threat to valid statistical inference based on ANOVA F-tests. The last assumption of homogeneity of error variances was addressed by utilizing LEVENE's F Test to assess the assumption of homogeneity of variance across the four experimental groups. The LEVENE's statistics for the variables subjected to univariate analysis of variance are shown in Table 31 in Appendix IV.

The LEVENE's statistics showed that some of the study variables violated the assumption of homogeneity of variance. Results indicated that there were no violations for the dependent variables. However, the manipulated variables primer-target congruity and primer-target comparison relevance showed violations to the assumption of homogeneity of variance. These violations implied that the disregarded variables could not be used in an ANOVA analysis. However, Tabachnick and Fidell (1983) state that the ANOVA analysis is robust to a violation of the homogeneity assumption provided that there are no outliers in the cells and that the number of respondents in each cell is reasonably high. They also state that one need not consider such violations seriously as long as the cell size is relatively equal (Hair Jr., Anderson, Tatham and Back 1998). The data revealed no serious extreme values, the number of respondents in each group was relatively high (28-34), and the cell size ratio was small across variables. Thus, the violations were not serious enough to prevent the use of ANOVA.

9.9. Manipulation of primer-target congruity and comparison relevance

The manipulation checks of Experiment 2 were conducted in a different way than in Experiment 1. As discussed earlier, the priming could possibly influence the manipulation checks when they were measured immediately after the priming task. Consequently, the manipulation checks were conducted as a pre-test. The students who pre-tested the primers and the target brands was one of the 7 experimental groups. These respondents (60 students) did not participate in the main experiment. Each respondent evaluated one primer against the two target brands. The primers and the ads of the target brands were assessed on their perceived level of primer-target congruity and their perceived level of primer-target comparison relevance. The items used to measure the primer-target congruity variable and the primer-target comparison relevance variable were the same as in Experiment 1 (see Chapter 7, section 7.4.2.). The order in which the target brands were evaluated was randomized.

Table 31 in Appendix IV shows that the assumptions of homogeneity of variances were violated for some the manipulated variables. However, as the violations were not serious, and

because ANOVA analyses usually are robust to such violations (Tabachnick and Fidell 1983), it was considered unnecessary to report additional analyses to ANOVA for the manipulation checks. The results of the pre-test are reported in Table 32.

Table 32: Pre-tests of the level of congruity and comparison relevance of the primers

Variable	F-ratio	Sig.	CDF Perfume		CDF Mountain Boots		Scheffe's comparisons	Sig.
			Chanel N°5 **(A)**	Coco Chanel **(B)**	Chanel N°5 **(C)**	Coco Chanel **(D)**		
							A < B	.822
Primer-target congruity	41.45	.000	**3.744** *(Sd.=1.1)* *(N = 26)*	**4.028** *(Sd.=1.3)* *(N = 25)*	**1.397** *(Sd.=.63)* *(N = 26)*	**1.747** *(Sd.1.0)* *(N = 25)*	A > C A > D B > C B > D C < D	.000 .000 .000 .000 .705
							A > B	.059
Primer-target comparison relevance	34.564	.000	**4.487** *(Sd.=1.3)* *(N = 26)*	**3.520** *(Sd.=1.7)* *(N = 25)*	**1.526** *(Sd.=69)* *(N = 26)*	**1.680** *(Sd.=1.1)* *(N = 25)*	A > C A > D B > C B > D C < D	.000 .000 .000 .000 .978

NOTE: * The test scores are represented as experimental group mean scores

The pattern of mean differences of the experimental manipulations in Experiment 2 was expected to be equal to the pattern of mean differences of the experimental manipulations in Experiment 1 (see Table 17, Chapter 7, section 7.9.). The pattern of ANOVA results for the manipulation checks supported the prediction underlying the primer-target congruity hypotheses and the primer-target comparison relevance hypotheses. For the primer-target congruity variable, the mean scores were large for the corresponding groups A and B (high congruity), and small for groups C and D (low congruity). The same pattern of means appeared for the primer-target comparison relevance variable. The mean scores were large for the corresponding groups A and B (high/low comparison relevance), and small for groups C and D (low comparison relevance). Nevertheless, as intended, the Scheffe's comparisons revealed that the mean difference between the corresponding groups A and B was significant (A > B, p = .059). Otherwise, the mean differences were not significant across the corresponding groups, neither for the primer-target congruity variable (A < B, p = .822 and C < D, p = .705) nor for the primer-target comparison relevance variable (C < D, p = .978). These results implied that the experimental manipulations worked as intended.

9.10. Test of target brand beliefs (H1, H2 and H4)

Just as for Experiment 1, the priming techniques used in Experiment 2 were expected to produce different priming effects. Specific hypotheses were developed in Chapter 8. H1, H2 and H4 addressed group differences in primer-target congruity and primer-target comparison relevance while H5a, H5b, and H5c addressed the influence of product category knowledge. These five hypotheses are tested below. First hypothesis H1, H2 and H4 are tested:

H1: There is a positive relationship between the level of primer-target congruity and the effect of a primed country stereotype on target brand beliefs.

H2: For a congruent target brand, a country stereotype primer low in comparison relevance produces a more positive impact on target brand beliefs than a primer high in comparison relevance.

H4: For an incongruent target brand, a country stereotype primer low in comparison relevance produces a positive impact on target brand beliefs.

The correlation matrix (see Table 30 in Appendix IV) revealed a significant positive correlation between the target brand beliefs variable and the primer-target congruity variable ($r = 44$; $p = .001$). This indicated that increasing congruity between a country stereotype primer and a target brand affected target brand beliefs with a positive effect. In other words, the target brand belief variable was more influenced by the primed country stereotype when the congruity between the primer and the target brand increased. This strongly supported H1.

An ANOVA was run to test H1 further and to test H2. The target brand belief variable did not violate the tests of homogeneity and therefore a non-parametric Kruskal-Wallis test was not run. An ANOVA was run for this dependent variable across all groups. The univariate main effects of mean differences are reported in Table 33.

Table 33: ANOVA of group differences in target brand evaluations across all groups

Variable	F-ratio	Sig.	CDF Perfume		CDF Mountain Boots		Scheffe's comparisons	Sig.
			Chanel N°5	Coco Chanel	Chanel N°5	Coco Chanel		
			(A)	**(B)**	**(C)**	**(D)**		
Target brand beliefs	8.871	.000	**2.4412** *(Sd.=1.1)* *(N =34)*	**3.5000** *(Sd.=1.2)* *(N = 28)*	**2.0781** *(Sd.=1.1)* *(N = 32)*	**2.3393** *(Sd.=1.2)* *(N = 28)*	A < B A > C A > D B > C B > D C < D	.005 .647 .989 .000 .003 .855

NOTE: * The test scores are represented as experimental group mean scores

This ANOVA allowed analyses that revealed whether the mean differences between the experimental groups were significant or not. The test showed that the mean scores for the target brand belief variable differed significantly across the four groups (F = 8.871; p = .000).

Test of H1 and H2: A clear shift in evaluations of target brand beliefs was observed between group B and the other experimental groups (A < B, p = .005, B > C, p = .000 and B > D, p = .003). The groups exposed to Coco Chanel (C) systematically showed higher mean scores relative to their corresponding groups. For CDF Perfume, the ANOVAs showed a significant mean difference in evaluations of target brand beliefs between the group primed with Chanel N°5 and the group primed with Coco Chanel (A < B, p = .005). The direction of these effects was in accordance with H1 and H2.

Test of H4: For CDF Mountain Boots, the ANOVAs did not show a significant mean difference in evaluations of target brand beliefs between the group primed with Chanel N°5 and the group primed with Coco Chanel (C < D; p = .855). Group D perceived CDF Mountain Boots to be more descriptive of the primed country stereotype than group C, but this mean difference was not significant. The direction of these effects was in accordance with H4.

This ANOVA was not efficient in testing the variance between the pairs of corresponding groups (see discussion in Chapter 7, section 7.10.). Within these groups, the evaluated target brands were identical and alternative explanations, which might have confused the priming effects were ruled out. Accordingly, new pair-wise ANOVAs were run to test the mean differences in target brand evaluations between the corresponding groups. These ANOVAs also included control groups. The univariate main effects of these pair-wise ANOVAs of target brand beliefs are reported in Table 34.

Table 34: ANOVA of differences in evaluations of target brands across corresponding groups

CDF Perfume (high congruity)							
Variable	F-ratio	Sig.	Chanel N°5 (high comp. rel.) **(A)**	Coco Chanel (low comp. rel.) **(B)**	Control **(C)**	Scheffe's comparisons	Sig.
Target brand beliefs	9.700	*.000*	**2.4412** *(Sd.=1.1)* *(N = 34)*	**3.5000** *(Sd.=1.2)* *(N = 29)*	**2.3500** *(Sd.=1.1)* *(N = 30)*	A < B A > C B > C	.002 .949 .001
CDF Mountain Boots (low congruity)							
Variable	F-ratio	Sig.	Chanel N°5 (low comp. rel.) **(A)**	Coco Chanel (low comp. rel.) **(B)**	Control **(C)**	Scheffe's comparisons	Sig.
Target brand beliefs	3.797	*.026*	**2.0781** *(Sd.=1.1)* *(N = 32)*	**2.3393** *(Sd.=1.2)* *(N = 28)*	**1.5893** *(Sd =.68)* *(N = 28)*	A < B A > C B > C	.623 .195 .030

NOTE: * The test scores are represented as experimental group mean scores

Test of H1 and H2: The ANOVA of CDF Perfume showed a significant mean difference between the two experimental groups and the control group ($F = 9.700$, $p = .000$). The group exposed to Coco Chanel (high congruity/low comparison relevance) systematically showed higher mean scores than the group primed with Chanel N°5 (high congruity/high comparison relevance) and compared to the control group. Scheffe's comparisons of differences in evaluations of target brand beliefs showed a significant mean difference between the group exposed to Coco Chanel and the group exposed to Chanel N°5 ($A < B$; $p = .002$). Scheffe's comparisons also showed a significant mean difference in evaluations of target brand beliefs between the group exposed to Coco Chanel and the control group ($B > C$; $p = .001$). It did not, however, show a significant difference in evaluations of target brand beliefs between the group exposed to Chanel N°5 and the control group ($A > C$; $p = .949$). These test results supported hypothesis H1 and H2, which proposed a positive assimilation effect in the high congruity/low comparison relevance condition and a contrast effect in the high congruity/high comparison relevance condition. The anticipated assimilation effect was revealed for the group exposed to Coco Chanel and the anticipated contrast effect was revealed for the group exposed to Chanel N°5. For group A, the mere fact that a very likely assimilation effect was "held back" implies that a contrast effect had occurred, most probably due to standard-of-comparison processes. The interpretation of this finding was that a "lack of assimilation" occurred for CDF Perfume, which was both highly congruent but also highly comparison relevant in relation to Chanel N°5. Because it was relevant to compare the primer with the target brand it was assumed that a comparison processes must have "ruled out" an initial assimilation effect and produced contrast in the judgment phase. Thus, H1 and H2 were supported.

Test of H4: The ANOVA of CDF Mountain Boots (low congruity/low comparison relevance) showed a significant mean difference between the two experimental groups and the control group ($F = 3.797$, $p = .026$). However, the test of CDF Mountain Boots showed a different pattern of mean differences than the test of CDF Perfume. For Mountain Boots, both groups exposed to the primers showed higher mean scores than the control group. Scheffe's comparisons of differences in evaluations of target brand beliefs did not show significant mean differences in evaluations of target brand beliefs between the group exposed to Coco Chanel and the group exposed to Chanel N°5 ($A < B$; $p = .623$). Both groups exposed to the primers showed higher mean scores than the control group. Yet only the difference between the group exposed to Coco Chanel and the control group was significant ($B > C$; $p = .030$). However, the mean difference between the group exposed to Chanel N°5 and the control group showed a parallel trend ($A > C$; p

= .195). Therefore, when control groups were included it was verified that the null effect observed in Experiment 1 in reality was an assimilation effect that seemed to occur in both groups. This was in accordance with H4, which predicted assimilation in both the two low congruity/low comparison relevance conditions caused by heuristic processing. Thus, H4 was supported in this condition. The results of these ANOVAs are shown in Figure 4 and Figure 5.

Figure 4: Test of priming effects on target brand beliefs for CDF Perfume

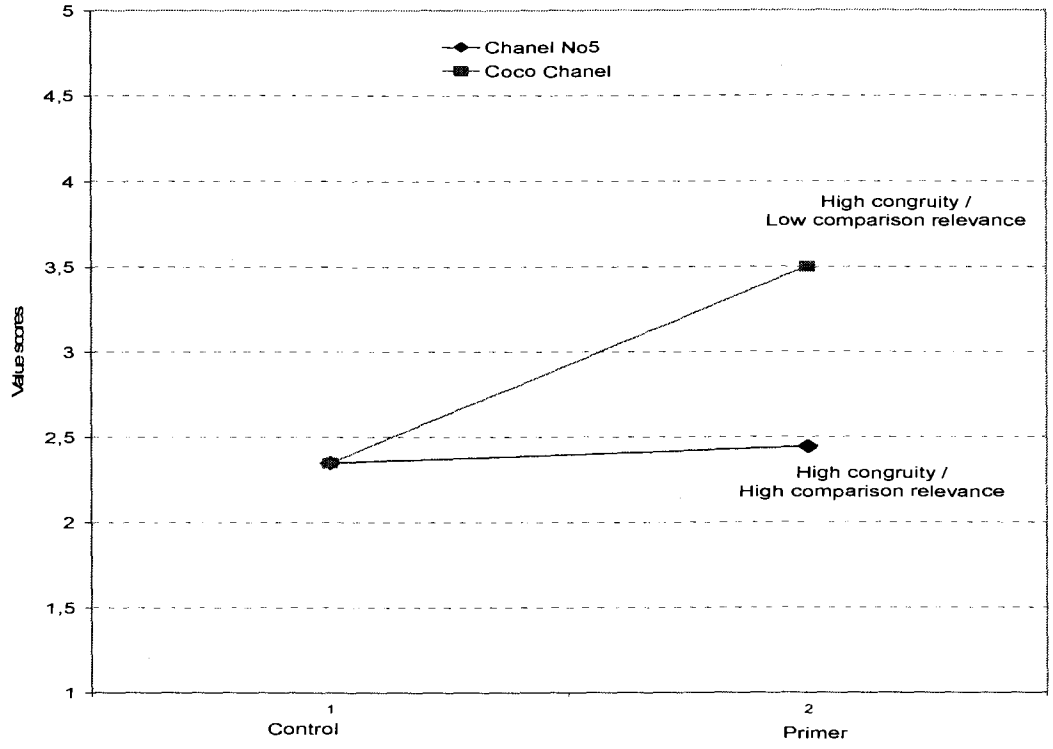
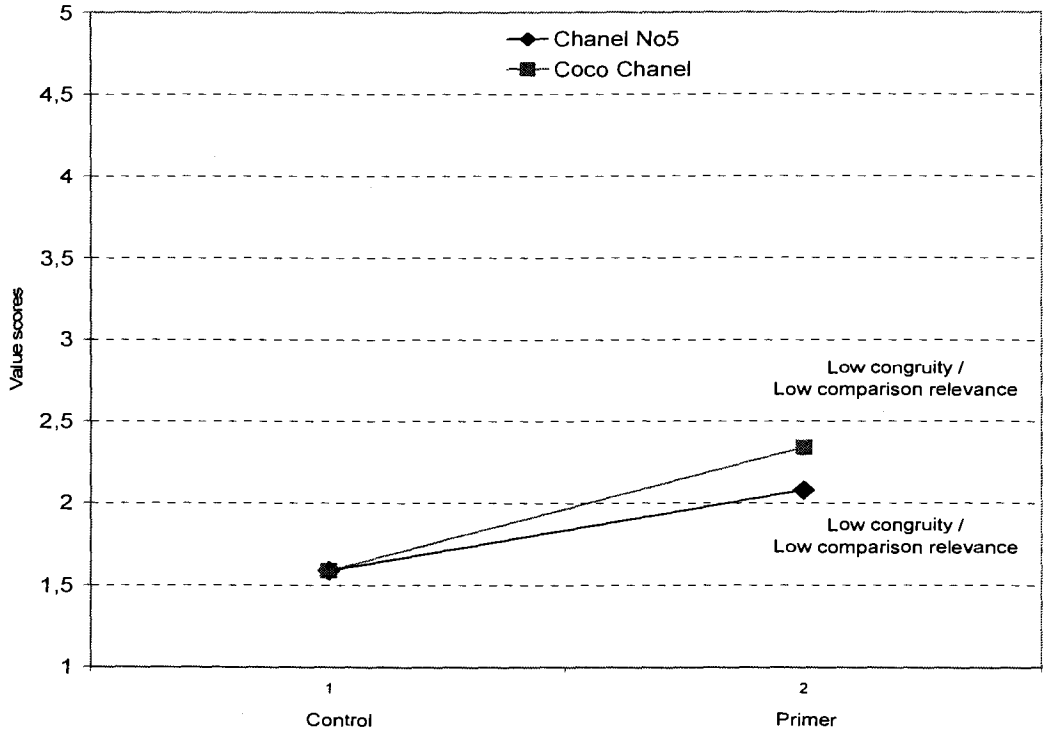


Figure 5: Test of priming effects on target brand beliefs for CDF Mountain Boots



9.11. Test of the multi-item personality trait variable (H1, H2 and H4)

The main effects predicted by H1 and H2 will next be tested on the multi-item measure of personality traits. The correlation matrix (see Table 30 in Appendix IV) revealed a significant positive correlation between the multi-item measure of personality traits and the primer-target congruity variable (r = 42; p =. 001). This indicated that increasing congruity between a country stereotype primer and a target brand affected the multi-item personality trait variable with a positive effect. In other words, the multi-item personality trait variable was more influenced by the primed country stereotype when the congruity between the primer and the target brand increased. Again, the pattern of correlations supported H1.

The multi-item personality trait variable did not show significant scores on LEVENE's test of homogeneity (see Table 31 in Appendix IV). Therefore, to test the mean differences between the experimental groups, non-parametric Kruskall-Wallis tests were not necessary. Because the tests of the target brand beliefs variable were run across all the experimental groups, it was sufficient to run ANOVAs only across the corresponding groups and the control groups for the multi-item personality traits variable. The results of these ANOVAs are shown in Table 35.

Table 35: ANOVA of differences in the multi-item personality traits across corresponding groups

CDF Perfume (high congruity)							
Variable	F-ratio	Sig.	Chanel N°5 (high comp. rel.) **(A)**	Coco Chanel (low comp. rel.) **(B)**	Control **(C)**	Scheffe's comparisons	Sig.
Multi-item measure of personality traits	5.931	*.004*	**2.9125** *(Sd.=1.1)* *(N = 32)*	**3.8500** *(Sd.=1.1)* *(N = 28)*	**3.0357** *(Sd.=1.2)* *(N = 28)*	A < B A < C B > C	.002 .914 .030
CDF Mountain Boots (low congruity)							
Variable	F-ratio	Sig.	Chanel N°5 (low comp. rel.) **(A)**	Coco Chanel (low comp. rel.) **(B)**	Control **(C)**	Scheffe's comparisons	Sig.
Multi-item measure of personality traits	3.810	*.026*	**2.9375** *(Sd.= .87)* *(N = 32)*	**3.1355** *(Sd.=1.1)* *(N = 31)*	**2.4786** *(Sd.= .85)* *(N = 28)*	A < B A > C B > C	.702 .170 .030

NOTE: * The test scores are represented as experimental group mean scores

Test of H1 and H2: The ANOVAs showed that the groups evaluating CDF Perfume consistently perceived it to be significantly more descriptive of the multi-item personality trait variable when respondents were primed with Coco Chanel than when they were primed with Chanel N°5. The Coco Chanel group showed systematically higher mean scores than the Chanel N°5 group and the control group (A < B; p = .002 and B > C, p = .030). These ANOVAs supported hypotheses H1, which proposed a positive assimilation effect in the high congruity/low comparison relevance condition (Coco Chanel). They also supported H2, which proposed a contrast effect in the high congruity/high comparison relevance condition (Chanel N°5). Thus, the anticipated assimilation effect was revealed for the group primed with Coco Chanel and the anticipated contrast effect was revealed for the group primed with Chanel N°5. Again the contrast effect was interpreted as a "held back" assimilation effect (A < C; p = .914), as the mean scores for group A did not differ from the mean scores of the control group. Thus, H1 and H2 were supported.

Test of H4: The ANOVA of the multi-item personality trait variable for CDF Mountain Boots showed a different pattern of mean differences. When control groups were included, it was verified that an assimilation effect seemed to have occurred in both groups (A > C; p = .170 and B > C; p = .030). Although the result was only significant for the group primed with Coco Chanel, the same trend was observed for the group primed with Chanel N°5. These ANOVAs support hypotheses H4, which predicted assimilation in the two low congruity/low comparison relevance conditions caused by heuristic processing. Yet this assimilation effect seemed to be stronger for the group exposed to the Coco Chanel primer. Thus, H4 was supported. The results on the multi-item personality trait variable for CDF Perfume and for CDF Mountain Boots are shown in Figure 6 and in Figure 7.

Figure 6: Test of priming effects on multi-item personality traits for CDF Perfume

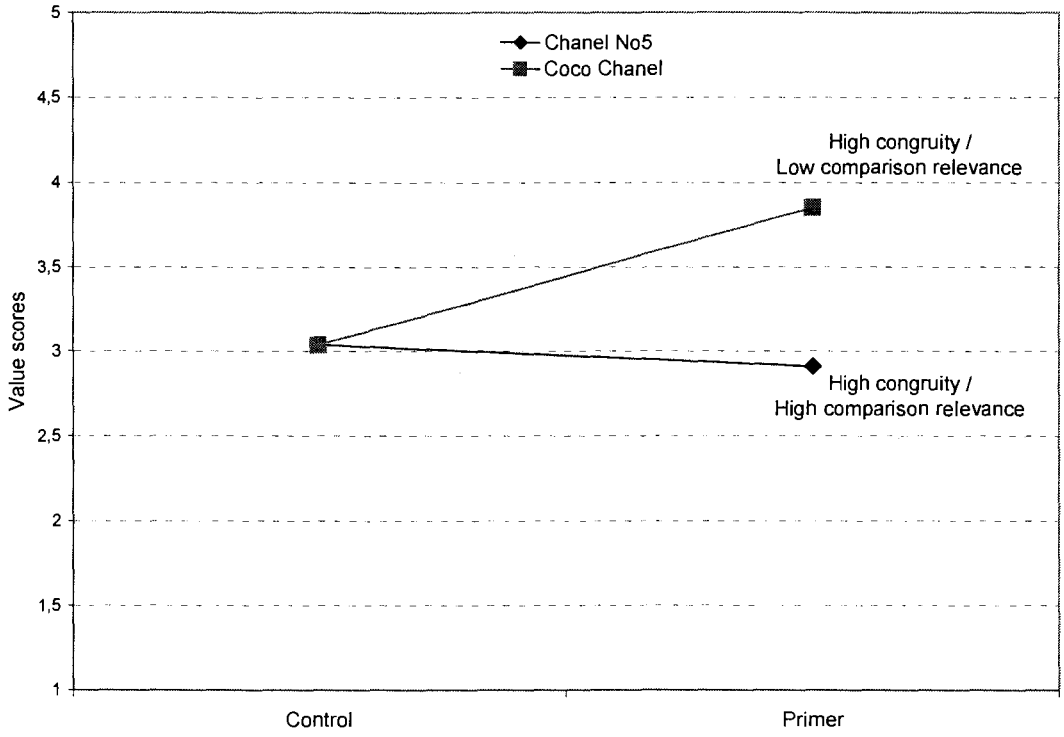
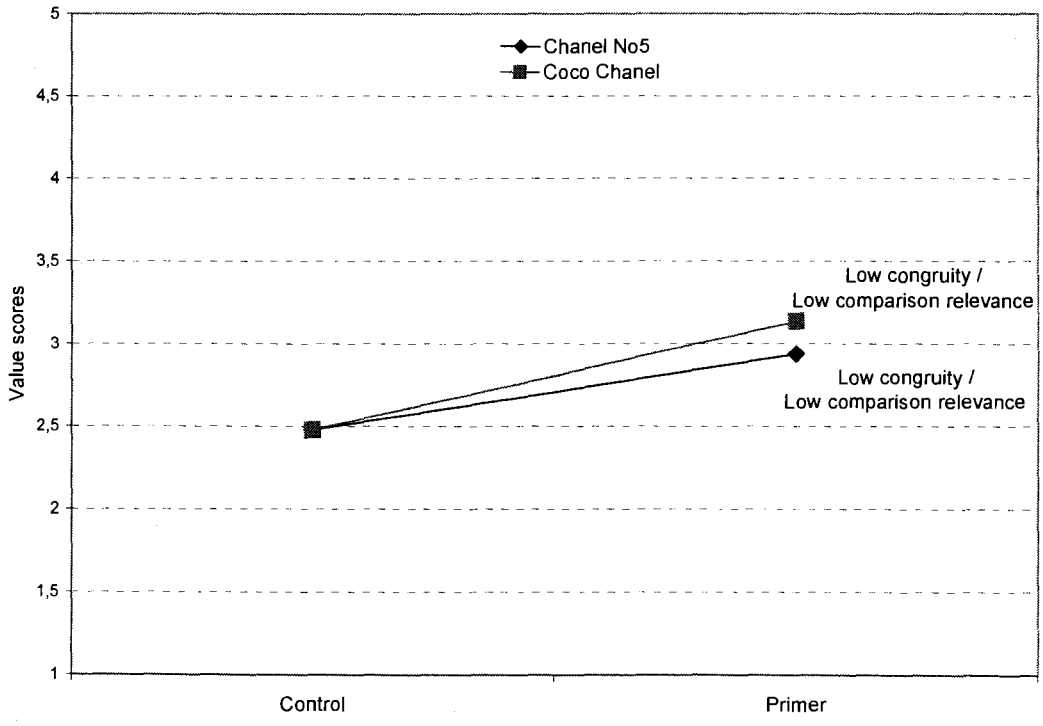


Figure 7: Test of priming effects on multi-item personality traits for CDF Mountain Boots



9.12. Test of product category knowledge (H5a, H5b and H5c)

With reference to H5a, H5b and H5c, the influence of product category knowledge is assessed below:

H5a: *For a congruent and comparison irrelevant primer, the size of the assimilation effect is larger for experts than for novices.*

H5b: *For a congruent and comparison relevant primer, the size of the contrast effect is larger for experts than for novices.*

H5c: *For an incongruent and comparison irrelevant primer, the size of the assimilation effect is larger for novices than for experts.*

To test for variations in results caused by a possible moderating effect of individual differences in product category knowledge some additional ANOVAs were run. The product category knowledge variable did not show significant scores on LEVENE's test of homogeneity (see Table 31 in Appendix IV). Therefore, only ordinary one-way ANOVAs were run to test whether this variable influenced the observed main effects. The experimental groups were divided into two (by a median split) and the ANOVAs were run across the new experimental groups. The results are shown in Table 36.

Table 36: ANOVA of differences in target brand beliefs across groups for CDF Perfume (high and low product category knowledge)

			CDF Perfume *(high congruity)*				
			Coco Chanel *(low comparison relevance)*				
	F-ratio	Sig.	Low knowledge **(A)**	High knowledge **(B)**	Control **(C)**	Scheffe's comp.	Sig.
Target brand beliefs	10.801	.000	**2.9167** *(Sd. =1.10)* *(N = 12)*	**3.9118** *(Sd. =1.11)* *(N = 17)*	**2.3500** *(Sd. =1.11)* *(N = 30)*	A < B A > C B > C	.067 .332 .000
			Chanel N°5 *(high comparison relevance)*				
	F-ratio	Sig.	Low knowledge **(A)**	High knowledge **(B)**	Control **(C)**	Scheffe's comp.	Sig.
Target brand beliefs	0.126	.882	**2.5000*** *(Sd. =.86)* *(N = 20)*	**2.23571** *(Sd. =1.34)* *(N = 14)*	**2.3500** *(Sd. =1.11)* *(N = 30)*	A > B A > C B < C	.932 .893 1.00

Table 36 cont.: ANOVA of differences in target brand beliefs across groups for CDF Mountain Boots (high and low product category knowledge)

			CDF Mountain Boots *(low congruity)*				
			Coco Chanel *(low comparison relevance)*				
	F-ratio	Sig.	Low knowledge **(A)**	High knowledge **(B)**	Control **(C)**	Scheffe's comp.	Sig.
Target brand beliefs	4.612	.014	**2. 6429** *(Sd. =1.31)* *(N = 7)*	**2. 2381** *(Sd. =1.17)* *(N = 21)*	**1.5893** *(Sd. =.69)* *(N = 28)*	A > B A > C B > C	.637 .045 .079
			Chanel N°5 *(low comparison relevance)*				
	F-ratio	Sig.	Low knowledge **(A)**	High knowledge **(B)**	Control **(C)**	Scheffe's comp.	Sig.
Target brand beliefs	3.299	.044	**2.4167** *(Sd. =1.42)* *(N = 12)*	**1.9211** *(Sd. =.90)* *(N = 19)*	**1.5893** *(Sd. =.69)* *(N = 28)*	A > B A > C B > C	.367 .046 .499

For CDF Perfume, the ANOVAs showed that the mean scores for the target brand belief variable differed significantly across the groups exposed to Coco Chanel ($F = 10.801$; $p = .000$). This was not observed for the groups exposed to Chanel N°5 ($F = .126$; $p = .882$). For Coco Chanel the Scheffe's comparisons revealed a clear shift in evaluations of target brand beliefs between group A, group B and the control group, while for Chanel N°5 this shift was not observed. For CDF Mountain Boots, the ANOVA showed that the mean scores for the target brand belief variable differed significantly across the groups exposed to Coco Chanel and for the groups exposed to Chanel N°5 ($F = 4.612$; $p = .014$ and $F = 3.299$; $p = .044$). Although the novices showed higher mean scores, no strong shift in evaluations of target brand beliefs was observed between experts and novices across the experimental conditions.

Test of H5a: According to H5a, the assimilation effect predicted in the high congruity/low comparison relevance condition would be larger for experts than for novices. For CDF Perfume, the experts exposed to Coco Chanel showed higher mean scores than the novices exposed to Coco Chanel and than the control group ($A < B$, $p = .067$, $B > C$, $p < .000$). These findings supported H5a.

Test of H5b: According to H5b, the contrast effect predicted in the high congruity/high comparison would be larger for experts than for novices. For CDF Perfume, the experts exposed to Chanel N°5 did not show significantly higher mean scores than the novices exposed to Chanel N°5 or than the control group ($A > B$, $p = .932$, $B < C$, $p = 1.00$). These findings did not support H5b.

Test of H5c According to H5c, the assimilation effect predicted in the low congruity/low comparison relevance condition would be larger for novices than for experts. For CDF Mountain Boots, the novices exposed to one of the two primers did not show significantly higher mean scores than the experts exposed to one of the two primers (Coco Chanel: $A > B$, $p = .637$ and Chanel N°5: $A > B$, $p = .367$). However, the novices in both conditions showed higher scores than the control group (Coco Chanel: $A > C$, $p = .045$ and Chanel N°5: $A > C$, $p = .046$). Because the assimilation effect was significantly stronger for novices compared to the control group in both conditions these findings rendered some support to H5c. These findings are shown in Figure 8 to Figure 11 below.

Figure 8: Priming effects on target brand beliefs of CDF Perfume for experts

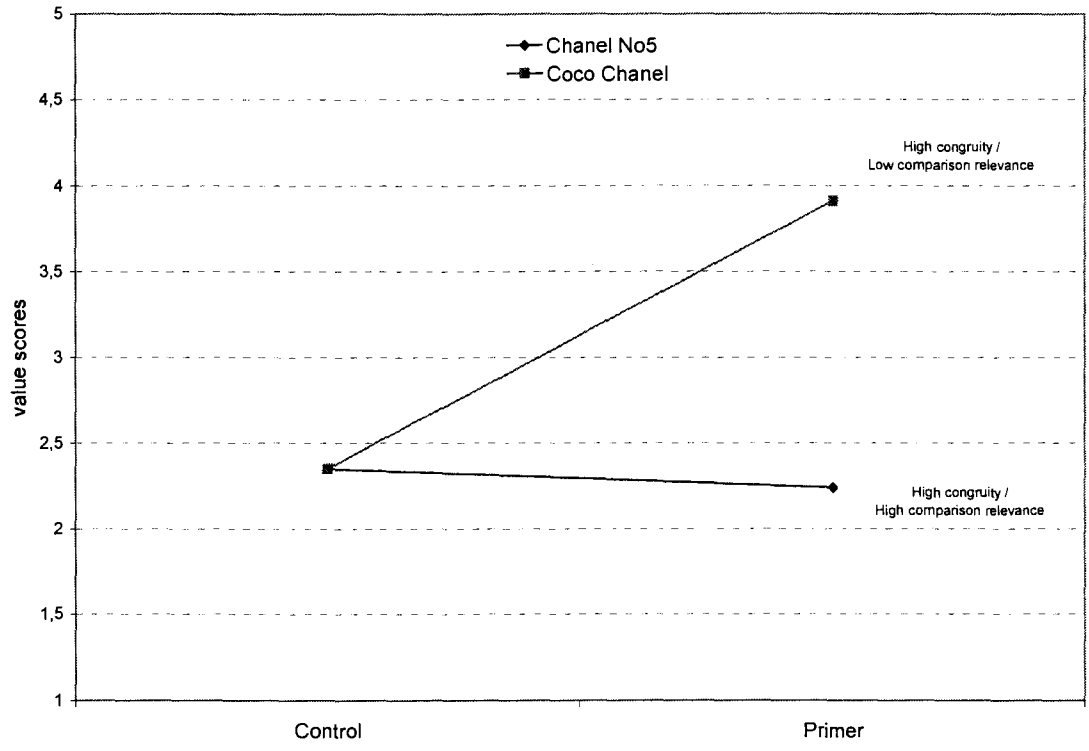


Figure 9: Priming effects on target brand beliefs of CDF Perfume for novices

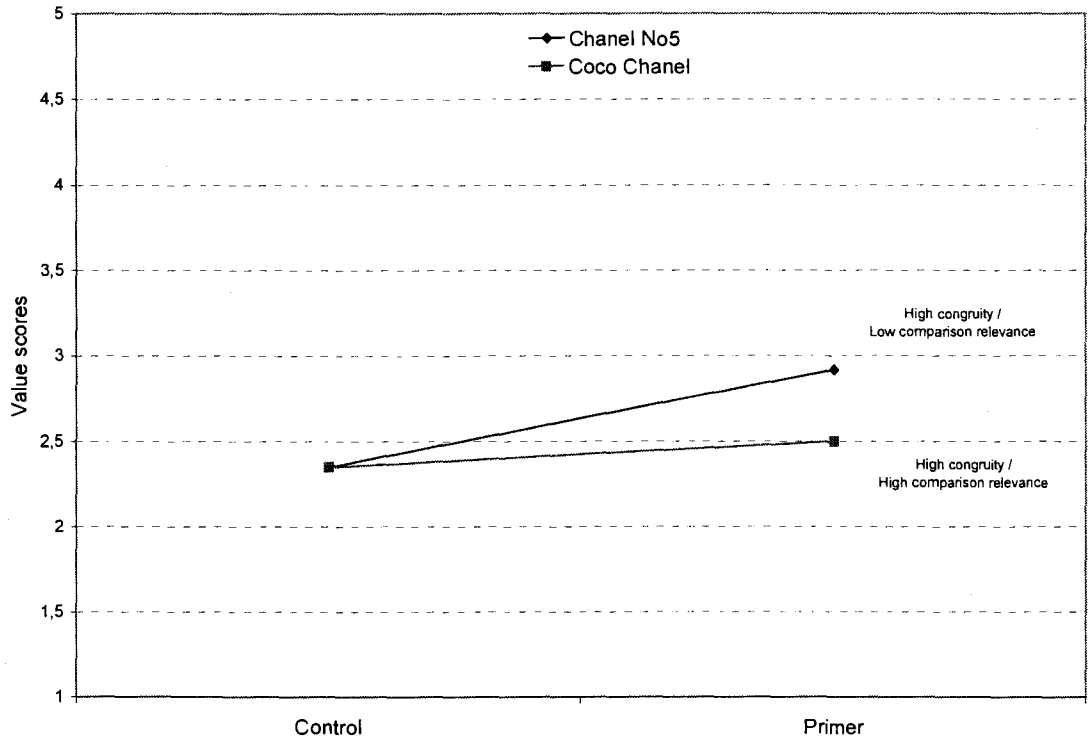


Figure 10: Priming effects on target brand beliefs of CDF Mountain Boots for experts

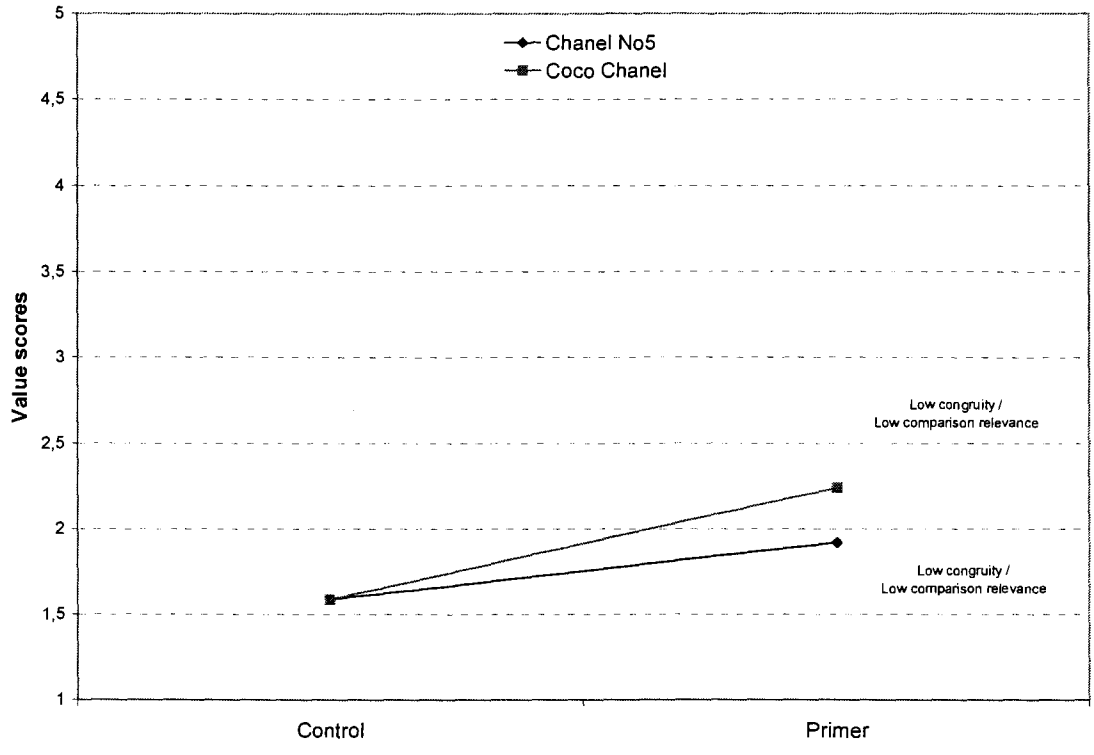
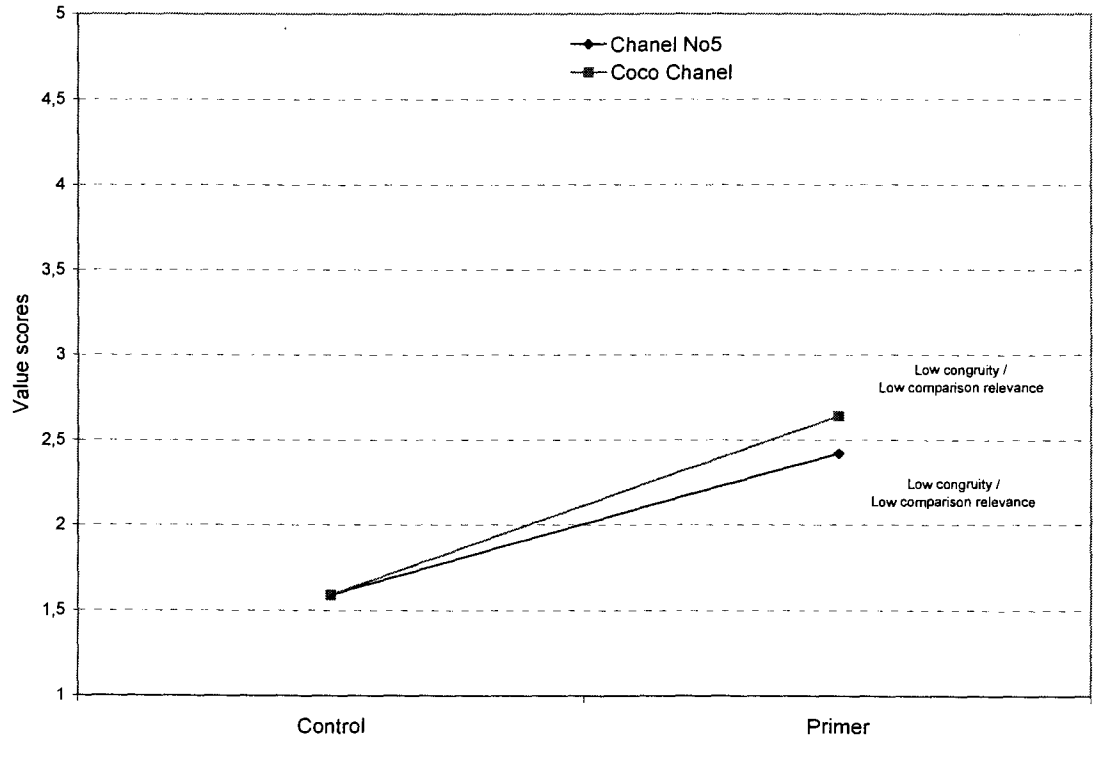


Figure 11: Priming effects on target brand beliefs of CDF Mountain Boots for novices



9.13. Summary of findings from Experiment 2

H1 predicted that for a target brand high in congruity and low in comparison relevance a country stereotype primer would produce assimilation of country stereotype beliefs, which would impact evaluations of the target brand positively. H2 predicted that for a target brand high in congruity and high in comparison relevance, a country stereotype primer would produce contrast of country stereotype beliefs, which would impact evaluations of the target brand negatively. Figure 4 shows a significant difference in judgments of target brand beliefs between the two experimental groups evaluating CDF Perfume. The target brand belief variable showed significantly higher mean scores when Coco Chanel (high congruity/low comparison relevance) was primed than when when Chanel N°5 (high congruity/high comparison relevance) was primed. This was a replication of the findings from Experiment 1. However, because Experiment 2 also included control groups, the data confirmed an assimilation effect for the group primed with Coco Chanel. In this condition, the target brand belief variable showed a significantly higher mean score than the control group. The data, moreover, confirmed a contrast effect for the group primed with Chanel N°5. In this condition the target brand belief variable showed an equal mean score with the control group and this was interpreted as contrast caused by a "held back" assimilation effect. Figure 6 shows an analogous pattern of priming effects for the multi-item personality trait variable. For the groups evaluating CDF Perfume, the multi-item measure of personality trait variable showed significantly higher mean scores when Coco Chanel was primed than when Chanel N°5 was primed. Again, this was interpreted as a positive assimilation effect in the Coco Chanel condition and as a negative contrast effect in the Chanel N°5. Hence, H1 and H2 were supported.

H4 predicted that for a target brand low in congruity and low in comparison relevance a country stereotype primer would produce assimilation due to heuristic processing, which would impact evaluations of the target brand positively. Figure 5 shows a difference in judgments of target brand beliefs between the two groups evaluating CDF Mountain Boots and the control group. The difference was, however, only significant for the group primed with Coco Chanel. Still, the trend was similar for the group primed with Chanel N°5. Thus, irrespective of which primer was used, evaluations of the target brand were consistently higher for the two groups exposed to the primers compared to the control group. Figure 7 shows an analogous pattern of priming effects for the multi-item personality trait variable. The two experimental groups showed higher judgments on the multi-item personality traits compared to the control group. These

findings showed that the anticipated null effect caused by an "early exit" found in the first experiment, in reality was an assimilation effect that occurred in both experimental conditions. Hence, H4 was supported.

H5a and H5b predicted that the level of consumer expertise would affect the size of the expected assimilation and contrast effects, as expected by the standard-of-comparison model. H5a postulated an increased assimilation effect, which was expected to be larger for experts than for novices. As predicted by H5a, Table 36 showed an increased assimilation effect for experts between the group primed with Coco Chanel and the control group. Consistent with these findings, Figure 8 and Figure 9 show an increased assimilation effect for experts and a decreased assimilation effect for novices. Hence, H4a was supported. H5b proposed an increased contrast effect between the group primed with Chanel N°5 and the control group, which was expected to be larger for experts than for novices. However, Table 36 did not show results that clearly indicated an increased contrast effect for experts and a decreased contrast effect for novices. Similarly, Figure 8 and Figure 9 did not show an increased contrast effect for experts compared to novices. Hence, H5b was not supported.

H5c predicted that for a target brand low in congruity and low in comparison relevance, the size of the priming effect would be larger for novices than for experts. In this condition, it was believed that both primers would produce a positive assimilation effect due to heuristic processing, which would be stronger for novices than for experts. Table 36 showed results that to some extent indicated an increased assimilation effect for novices compared to experts. Figure 10 and Figure 11 show that for novices, an increased assimilation effect was produced between the two groups evaluating CDF Mountain Boots and the control group, irrespective of which primer was exposed. For experts, on the other hand, a decreased assimilation effect was observed. The findings thereby showed that the assimilation effect in the low congruity and low comparison relevance condition was strengthened for novices and weakened for experts. These results render moderate support to H5c. The findings from the tests of hypotheses are summarized in Table 37.

Table 37: Summery of tests of hypotheses

Variable	Hypotheses	Direction	Result
➢ Primer-target congruity	H1: There is a positive relationship between the level of primer-target congruity and the effect of a primed country stereotype on target brand beliefs.	+	➢ Supported
➢ Primer-target comparison relevance	H2: For a congruent target brand, a country stereotype primer low in comparison relevance produces a more positive impact on target brand beliefs than a primer high in comparison relevance.	+/÷	➢ Supported
	H4: For an incongruent target brand, a country stereotype primer low in comparison relevance produces a positive assimilation effect on target brand beliefs.	+	➢ Supported
➢ Product category knowledge	H5a: For a congruent and comparison irrelevant primer, the size of the assimilation effect is larger for experts than for novices.	+	➢ Supported
	H5b: For a congruent and comparison relevant primer, the size of the contrast effect is larger for experts than for novices.	÷	➢ Not supported
	H5c: For an incongruent and comparison irrelevant primer, the size of the assimilation effect is larger for novices than for experts.	+	➢ Moderately supported

To conclude the findings from Experiment 2, the results seem to give a fairly good support for several of the proposed hypotheses. With control groups it was verified that the differences between groups in the high congruity and high/low comparison relevance condition were due to assimilation and contrast effects as expected from the standard-of-comparison model. Moreover, the observed assimilation effects were strengthened for experts and weakened for novices. In addition to this, when control groups were included, it was verified that the null effect observed in Experiment 1 in the low congruity and low comparison relevance condition, was in reality, an assimilation effect that occurred in both groups. In Experiment 2 the limitation of the lacking control groups in Experiment 1 was dealt with and the manipulations checks were improved. Nonetheless, some new questions were encountered, particularly connected to the hypotheses that were not supported. These issues are discussed further in Chapter 10 where limitations and directions for future research are outlined.

CHAPTER 10

DISCUSSION

10.1. Chapter introduction

This chapter discusses the findings of the three studies as a whole. The chapter is organized in the following way. In section 10.2, important findings from the three studies are summed up and discussed. In section 10.3, the contributions of the study are presented and some theoretical and managerial implications are suggested. Lastly, in section 10.4, the limitations of the present research are discussed and some recommendations for future studies are presented.

10.2. Discussion

The findings from the three studies conducted in this doctoral thesis need some more discussion. The thesis addressed how visual exemplar primers, used to evoke country stereotypes, could result in carry-over effects affecting cognitive components of brand personality. Assimilative priming would produce positive carry-over of country stereotype beliefs, while contrastive priming would result in negative carry-over effects. It was argued that the level of congruity ("match") between a primed country stereotype and a target brand would determine whether a country stereotype would be assimilated and thereby change the brand personality of a target brand. Congruity was manipulated by choosing target brands that matched or mismatched selected country stereotypes. Moreover, characteristics of the country stereotype primer would determine whether it was relevant to compare primed information with existing target brand associations, with contrast as a likely result. The level of primer-target comparison relevance was manipulated by using target-category (product) exemplar primers and non-target-category (person and product) exemplar primers. Finally, the primers were exposed as pictures to ensure the primers being practicable cues for application in brand advertising. Furthermore, to encourage comparison processes, they were all fairly extreme. It was foreseen that different primer-target combinations would result in dissimilar priming effects.

Before the observed results are commented on any further, the perspective from which these results have been interpreted should be clarified. The perspective, which lays the ground for the comprehension of the observed priming effects, is that of "a net contextual priming effect". The findings are believed to result from assimilated and contrasted functional attributes or symbolic features, which are summed up to a total effect (Levin and Levin 2000). The total effect could be caused by both assimilated and contrasted dimensions, although the central tendency would be either assimilation or contrast. The main findings are summarized in Table 38.

Table 38: Summery of results from the three studies

Study	Objective	Experimental design	Findings
Pilot Study	➢ Preliminary test of experimental manipulations and experimental stimuli	➢ Sample: 363 students ➢ Target brand: CDF Mountain Boots, CDF Trousers ➢ Primed concept: "US western lifestyle", "US urban lifestyle" ➢ Primers: DKNY, Marlboro Classics ➢ Type of primer: (1) target-category exemplar (product), (2) non-target category exemplar (person or product) ➢ Primer characteristics: pictures of extreme exemplars ➢ Two equivalent experiments: 2 [primer type: non-target category exemplar (person/product) / target-category exemplar (product)] x 2 [congruity: high/low] between subjects factorial design, ANOVA and correlation analyses	➢ Experimental manipulation did not work as planned and this was thought to be due to the visual nature of the contextual primers. ➢ The correlation matrix showed the expected significant relations between the study variables except for the primer-target comparison relevance variable. ➢ The correlations showed that the primer-target comparison relevance variable was positively related, not negatively (as predicted), to target brand beliefs. This implied that this variable was perceived as a type of congruity measure leading to assimilation (implying a positive correlation), rather than as an indicator of contrastive judgments (implying a negative correlation).
Exp. 1	➢ Focus on how assimilation and contrast by standard-of-comparison depend on primer-target congruity and primer-target comparison relevance. ➢ Inclusion of primer extremity as a moderating variable	➢ Sample: 158 students ➢ Target brand: CDF Perfume, CDF Mountain Boots ➢ Primed concept: "French Finesse" ➢ Primers: Chanel N°5, Coco Chanel ➢ Type of primer: (1) target-category exemplar (product), (2) non-target category exemplar (person or product) ➢ Primer characteristics: pictures of extreme exemplars ➢ One experiment: 2 [primer type: non-target category exemplar (person/product) / target-category exemplar (product)] x 2 [congruity: high/low] between subjects factorial design ➢ ANOVA analyses	➢ For CDF Perfume (high congruity), assimilation (high evaluations) was found for Coco Chanel for the target brand belief variable. ➢ No significant priming effect was observed for CDF Mountain Boots (low congruity). Yet, Coco Chanel systematically had a slightly stronger assimilative impact on the target brand belief variable. ➢ A moderating effect of primer-target extremity was found, with increasing assimilation for less extreme primers and increasing contrast for extreme primers. This implied that primer extremity directed contrast by standard-of-comparison. ➢ The direction of the observed priming effects could not be conclusively confirmed without control groups included as points of reference.
Exp. 2	➢ Replication of experiment 1 with control groups included. ➢ Inclusion of a multi-item personality trait variable ➢ Inclusion of product category knowledge as a moderating variable.	➢ Sample: 208 students + 60 students in the pre-test ➢ Target brand: CDF Perfume, CDF Mountain Boots, 2 control groups ➢ Primed concept: "French Finesse" ➢ Primers: Chanel N°5, Coco Chanel ➢ Type of primer: (1) target-category exemplar (product), (2) non-target category exemplar (person or product) ➢ Primer characteristics: pictures of extreme exemplars ➢ One experiment: 2 (primer type: non-target category exemplar (person/product) / target-category exemplar (product) x 2 (in-congruity: high, low) + 2 (control group) between subjects factorial design ➢ ANOVA analyses	➢ For CDF Perfume, a significant assimilation effect was confirmed for Coco Chanel (high congruity and low comparison relevance), and a contrast effect as a "held back" assimilation effect was confirmed for Chanel N°5 (high congruity and high comparison relevance). ➢ A significant assimilation effect was observed in both groups evaluating CDF Mountain Boots (low congruity and low comparison relevance), which indicated heuristic processing. ➢ Overall, the same pattern of effects was found for the target brand belief variable and for the multi-item personality trait variable. ➢ A moderating effect of product category knowledge was found, with increasing assimilation for CDF Perfume among experts.

The pilot study: The first study mainly showed that the experimental manipulation did not work as predicted by earlier studies for target-category and non-target category exemplars when visual primers were used in place of verbal primers. The main reason was believed to be the visual nature of the primers, and a more careful selection of primers was therefore required for the main experiments. Inspection of the correlation matrix showed the predicted significant interrelations between the study variables, except for the primer-target comparison relevance variable. Despite the expectations, this variable was positively, not negatively related, to almost all the dependent variables. Seen from a standard-of-comparison perspective, the positive correlation between the primer-target comparison relevance variable and the dependent variables was surprising. Increased contrast was anticipated with increasing primer-target comparison relevance suggesting a negative correlation (Stapel and Koomen 1997; Stapel et al. 1998). Yet, the positive correlations could be interpreted by at least two alternative explanations: (1) the items used to measure the primer-target comparison relevance could have been insufficient to unveil the construct and (2) the prediction of the effect of high comparison relevance in the standard-of-comparison model could have been incorrect. The first argument was shown to be most plausible as the assimilation and contrast effects, as predicted by the standard-of-comparison model, occurred in the next two experiments.

A strong positive correlation was also found between the primer-target comparison relevance variable and the primer-target congruity variable. It was therefore argued that the concept of primer-target comparison relevance, as it was operationalized in this doctoral thesis, could be perceived as a type of similarity rating rather than an indicator of contrastive judgments. To overcome this problem, rigorous pre-testing of the country stereotype primer - target brand relationships was undertaken before the next two studies were carried out. As a result, the experimental manipulations worked better in these studies. In the following sections, the findings from Experiment 1 and from Experiment 2 are discussed in relation to each other.

High congruity and high/low comparison relevance (H1 and H2): Experiment 1 focused on the role of high congruity and high or low comparison relevance, which together were thought to stimulate either assimilation or contrast by standard-of-comparison. The findings indicated a significant assimilation effect in the high congruity - low comparison relevance condition (Coco Chanel vs. CDF Perfume). However, because the manipulation checks did not work completely as intended, the predicted contrast effect in the high congruity - high comparison relevance condition (Chanel N°5 vs. CDF Perfume) was not tested. The assimilative processes resulted in carry-over of country stereotype beliefs to the target brand. However, the

direction of the observed priming effects could not be concluded, as control groups were not included as points of references. In Experiment 2, similar priming effects were predicted for the high congruity and high comparison relevance condition. Again, a significant assimilation effect was found in the high congruity - low comparison relevance condition. Moreover, in Experiment 2 a significant contrast effect was found in the high congruity - high comparison relevance condition. When control groups were included, the contrast effect was confirmed as being a "held back" assimilation effect, which implied no carry-over of beliefs or emotions to the target brand. It should be noted, however, that pre-existing target brand beliefs were not "ripped off" as a result of this contrast effect. In Experiment 2, the same pattern of priming effects was found for the target brand belief variable and for the multi-item personality trait variable. Altogether, Experiment 1 and Experiment 2 verified that either assimilation or contrast could result depending on the level of congruity and the level of comparison relevance between a country stereotype primer and a target brand.

Low congruity and low comparison relevance (H4): Both studies addressed the condition of low primer-target congruity and low primer-target comparison relevance (CDF Mountain Boots). In Experiment 1, no significant difference was observed between the two groups evaluating CDF Mountain Boots and this was interpreted as a null effect caused by an early exit (e.g., Martin 1986; Schwarz and Bless 1992). However, in Experiment 2 when control groups were included, a significant assimilation effect was observed for both groups compared to the control group. This finding was believed to be caused by heuristic processing. A parallel pattern of priming effects was found for the target brand belief variable and for the multi-item personality trait variable. This finding challenged the established assumption that priming effects increase as a function of the level of congruity between a contextual primer and a target object.

Moderating effect of primer extremity (H3): In Experiment 1 a moderating effect of primer extremity was found, which showed increasing assimilation for non-extreme primers and increasing contrast for extreme primers. The results observed in Experiment 1 seemed to be consistent with findings from earlier priming studies, which also implied that decreasing primer extremity strengthened assimilative processes and that increasing primer extremity strengthened contrastive standard-of-comparison processes (e.g., Herr et al. 1983; Herr 1986; 1989; Sherif and Hovland 1961; Stapel et al. 1997; Moslowitz and Skurnik 1999).

Moderating effect of product category knowledge (H5a, H5b and H5c): In Experiment 2 a moderating effect of product category knowledge was found. In the high congruity and low comparison relevant condition (CDF Perfume), the size of the assimilation effects increased among experts. The mean differences between the group exposed to Chanel N°5 and the group

exposed to Coco Chanel increased for experts and decreased for novices. This result supported the prediction of the influence of product category knowledge on assimilation effects in which experts were more likely to assimilate information evoked by a congruent primer to the target brand. The results did not support the prediction that experts would be more likely to contrast information evoked by a congruent and comparison relevant primer. Neither did the result support the prediction that novices would be more likely to assimilate information evoked by an incongruent and comparison irrelevant primer. For the groups evaluating CDF Mountain Boots, the size of the observed priming effects was not impacted by product category knowledge.

General comments of the study findings: Across all the analyses of the study findings it is evident that respondents who were primed with Coco Chanel consistently showed a higher tendency to assimilate the primed beliefs. The increased assimilation effect occurred independently of the target brand that was evaluated. A possible explanation is that Coco Chanel (person exemplar primer) evoked a more complex set of perceptions than Chanel N°5 (product exemplar primer). It is likely that the person, Coco Chanel, activated a richer cognitive category than the brand Chanel N°5. A more multidimensional category can potentially generate more feature matches even with target brands low in congruity. It was believed that Coco Chanel generated more matches on abstract and symbolic features, which were more easily assimilated. Chanel N°5, on the other hand, mainly generated matches on functional product attributes, which were more easily compared and contrasted.

10.3. Contributions of the study

Attention in the trade and academic literature has been recently drawn to the brand personality construct (e.g., Aaker 1997; Jones et al. 1997; Grime et al. 2002). Brand personality can act as a differentiating tool, especially in today's markets where brands have increasingly similar attributes (de Chernatony and Dall'Olmo Riley 1998). It can also act as a central device to drive consumer preference and brand usage (Biel 1993). However, there is a lack of research as to how priming cues, particularly when applied in advertising, can affect development of brand personality. The present study shed some light on how exposure to country stereotype primers, which were manipulated in terms of primer-target congruity and primer-target comparison relevance, affects brand personality.

10.3.1. Theoretical implications

Contributions to research on strategic brand building: This study contributes to research on branding in general and to research on brand personality in particular. Country stereotypes were shown to be potential sources of brand personality. In particular, primed national icons were able to imbue brands with brand personality associations. Although the potential of using country stereotypes in brand positioning appears to be substantial, this area of research has only just begun to develop. No other studies have been identified that have looked at how country stereotypes can be used to build brand imagery. The concept of "brand origin" (Thakor and Kohli 1996; McCracken 1993), referring to the national characteristics of brands has been currently introduced, however to date this concept has been subjected to little or no empirical testing. This thesis provides some new insight to this area of research.

To date the branding literature has primarily focused on assimilation or absence of assimilation as the alternative outcome of primary concern in brand evaluations (Wänke, Bless and Schwarz 1998). This focus is surprising in light of empirical findings, which, for instance, suggest that priming in brand extensions can also result in positive or negative contrast effects[31], commonly are termed reciprocity effects (e.g., Boush and Loken 1991; Romeo 1991; Wänke et al. 1998; Balachander and Ghose 2003).[32] In spite of the focus on assimilation effects in branding research, it is perhaps from the contrast effect studies that several new theoretical points arise. The fact that contrast effects are difficult to explain based on current theorizing, for instance about brand extensions, reflects the lack of a comprehensive framework that conceptualizes the emergence of assimilation and contrast effects in the branding domain (Wänke et al. 1998, p. 309). The present study provides new insight in how contrast rather than assimilation can impact brand formation in general and brand personality formation in particular.

Contributions to advertising research: Increased understanding about how to use country stereotype primers in brand positioning is of great value to advertisers. Insight as to how

[31] The availability-valence model of Kisielius and Sternthal (1984) and the accessibility-diagnostic model of Feldman and Lynch (1988) might explain these findings. Both models define determinants for the likelihood that contextually primed information is used in such a way that positive context has negative effects and negative contexts have positive effects. Romeo (1991) reported an increase in brand favorability after negative information about a dissimilar extension was provided.

[32] For example, Boush and Loken (1991) varied the typicality of product categories and observed rather negative evaluations for extremely atypical product categories. They concluded that "the negative attitude towards extremely unlikely or atypical products that a brand might make went beyond the failure of a positive attitude to 'rub of'on the new product" (p.25). In another study Romeo (1991) reported an increase in brand favorability after negative information about a dissimilar extension was primed.

different types of symbols could produce assimilation or contrast when utilized in ads or in ad contexts would be very useful for such practitioners. They try to magnify favorable assimilation effects and to avoid negative contrast effects from their advertisements. This study provides some clear guidelines as to how to apply country stereotype primers in ads to stimulate assimilation and to avoid contrast. The present studies also increase the knowledge about use of celebrity endorsers (e.g., Batra et al. 1996) and endorsing brands (Kapferer 1998) in advertising. The findings suggest that famous national icons are more likely to produce assimilation and that famous national brands are more likely to produce contrast.

Contributions to research on country-of-origin/country image: Priming has not been frequently applied to initiate country-of-origin effects. To the researcher's knowledge, only three priming studies have been conducted in the country-of-origin field of research (Hong and Wyer 1989; 1990; Li and Wyer 1994). These studies looked at how country-of-origin cues affected product evaluations when country-of-origin was presented before, together with or after other product information. As predicted by priming research, these studies showed that when country-of-origin labels were presented before other product information, they influenced how much respondents elaborated on the available information and how they interpreted it (Hong and Wyer 1989; 1990). The focal point was on the underlying cognitive processes that caused simple "made-in" cues to work. These studies did not address how priming of specific country stereotypes, evoked by different types of primers, could impact brand inference making.

The present study also contributes to research on country-of-origin effects in a broader sense. To date, country-of-origin research has primarily focused on how simplified perceptions of product-related country qualities can affect product category evaluations (e.g., Han 1989; Johansson 1989; Hong and Wyer 1989; 1990; Maheswaran 1994). Very few studies have addressed how product-unrelated country perceptions can influence brand evaluations. To address this, the focal point of the thesis was how non-product related country perceptions such as the symbolic features of people from a country could affect brand inference making.

Contributions to research on contextual priming: The contribution to research on contextual priming lies in the priming of country stereotypes, which are expected to influence categories of brands as opposed to categories of people. The latter is most common in social psychology research (see Higgins 1996; Stapel and Koomen 1997; Moskowitz and Skurnik 1999). In consumer psychology, most priming studies have primed functional product attributes

(Herr 1989; Boush 1993; Pryor and Brodie 1998; Wänke, Bless and Schwarz 1998)[33]. However, the results of the present research indicate that symbolic brand features can also be assimilated and contrasted in a standard-of-comparison manner.

The study findings challenge the established supposition that target-category exemplar primers are more comparison relevant than non-target category exemplar primers (e.g., Stapel and Koomen 1997; Stapel et al. 1998). It was shown that when a target-category primer differs in symbolic imagery from a target brand, which is highly likely when visual exemplars are applied, the symbolic mismatch might make a target-category primer seem less comparison relevant in relation to the target brand. Therefore, low ratings of primer-target comparison relevance can occur even though the primer possesses the same functional attributes as the target brand. Accordingly, future research should handle experimental manipulations as well as manipulation checks of the comparison relevance variable more carefully than what has been the practice to date.

As opposed to what has been the practice in previous contextual priming studies, this study apply manipulation checks and develop some new items to measure the comparison relevance variable, which not previously has been applied in priming research. Moreover, the study shows that one should be careful in running manipulation checks after the priming procedure is completed and the target brands are assessed. This study indicates that a foregoing priming procedure can disturb the outcome of the manipulation checks such that they do not show the correct results on the experimental manipulations. For future studies, it is therefore recommended to conduct the manipulation checks as pre-tests on a neutral sample.

10.3.2. Managerial implications

The results provide some empirical evidence that improves the understanding of how to apply exemplar primers in advertising. This is useful as normative guideline for selection of advertising symbols to develop brand personality are lacking. It looks as if both assimilative and contrastive processes can occur when visual exemplar primers are exposed prior to visual target brands. However, it also looks as if perceptions of the level of congruity and the level of

[33] Only a few studies have investigated priming of symbolic features. For example Meyers-Levy and Sternthal 1993; Stapel et al. 1998, primed social prestige by applying the verbal traits "elegant" and "casual" in evaluations of a restaurant.

comparison relevance between an exemplar primer and a target become blurred when visual exemplar primers are applied. Therefore, cautious selection and thorough pre-testing of the primers are vital when visual exemplar primers are used in ads.

It seems more risky to apply endorsing brands rather than celebrity endorsers in the advertisement of new products, as endorsing brands can promote contrast effects. If an endorsing brand is a target-category exemplar and it signals certain attributes or features more extremely than the advertised product, unwanted comparison processes can result. For instance, if a parent brand is used as an endorser in an ad campaign of a novel product, standard-of-comparison processes can result in negative evaluations of the advertised product. Person exemplars, on the other hand, are only expected to stimulate assimilation, which results in more positive product evaluations. Therefore, the use of national celebrity endorsers in advertisements as symbolic brand characters to build brand personality is recommended.

Advertisers should also carefully consider other cues and symbols present in the ad context (media) in which a brand is advertised. Such apparently irrelevant cues can possibly work as contextual primers and thereby affect evaluations of an advertised brand. For example, it is likely that print advertisements of cars presented early in an automobile magazine can work as comparison standards against which cars presented in later advertisements can be compared and contrasted. Marketers who produce TV commercials should also find the present results useful. They should in particular, consider carefully the use of symbols to tell the "ad story". They should above all, avoid utilizing extreme brand endorsers early in a TV commercial.

Priming can be a feasible technique to influence the perceived similarity between two disparate brands when brand builders try to extend brands to new categories or to build brand alliances. The present study indicates that priming of symbolic imagery evoked by a visual exemplar primer can unite dissimilar product categories and create favorable carry-over effects. Such effects of priming are reported in a few other studies (e.g., Boush 1993; Pryor and Brodie 1998; Lane 2000). A person exemplar primer in particular, will evoke a richer set of perceptions that can generate more links to abstract and symbolic features. A product exemplar primer will primarily activate functional product attributes, which are more discrete and therefore less able to unite dissimilar brands.

10.4. Limitations and directions for future research

The fact that the manipulation of primer-target comparison relevance did not fully perform as intended in the pilot study and in Experiment 1 was a limitation of the present study. This limitation made it difficult to conclude that the observed difference between the two corresponding groups in the high congruity condition was actually caused by standard-of-comparison processes. However, this was a first testing of direct measures of the primer-target comparison relevance concept. The way this concept has been measured here, it seemed to perform parallel to the congruity variable, and not as a distinct construct. Additional types of pre-tests and further testing of items should be conducted to validate whether the distinction between primer-target congruity and primer-target comparison relevance makes sense theoretically. The fact that these variables are highly correlated, and somewhat difficult to differentiate by factor analysis, implies that one should reconsider whether it is constructive to make a distinction between them. For future studies, items that are designed to reveal the construct of prototypicality would probably be better for measuring the primer-target comparison relevance construct. These are often subjective measures of category representation such as "goodness-of-example" ratings (e.g., Barsalou 1985; Veryzer and Hutchinson 1998).

It should be noted, however, that the use of visual exemplars as applied in this research, and not verbal exemplars as applied in most other priming studies, may partly explain the inadequacy of the manipulation checks. Herein, the manipulation of primer-target comparison relevance was conducted in the established way (e.g., Stapel and Koomen 1997; 1998; and Stapel et al. 1997; 1998). As suggested by Stapel et al. (1996), target-category exemplars and non-target-category exemplars were used to manipulate the primer-target comparison relevance variable. It was assumed that respondents would find CDF perfume more comparison relevant with Chanel N°5 (representing a perfume) than with Coco Chanel (representing a person). However, the exemplar primers were exposed as pictures, not as words, which has been the practice in most other priming studies. It is likely that the visual exemplar primers could have activated a richer imagery (evoked by, for instance, signs, colors, layouts and print quality), which might have distorted the experimental manipulations. Even though the tangible product attributes were similar, the symbolic imagery of the primer brand might not have matched the symbolic imagery of the target brand. Respondents may therefore have found the product exemplar primer and the target brand dissimilar and irrelevant to compare. The ratings of primer-target comparison relevance could be based solely on perceived differences in symbolic

imagery, and not on the obvious similarities in functional product attributes. Therefore, when the priming technique is applied in marketing settings, and especially when exemplar primers are exposed visually, the functional product attributes and symbolic brand features should at least be considered as factors that can distort the experimental manipulations.

Related advertising research indicates that the relationship between pictorial information and cognitive processing could have disturbed the experimental manipulations. Several studies suggest that pictorial information generates more cognitive elaboration (imagery processing) and that the cognitive activity stimulated by pictures may be less controlled than that stimulated by words (e.g., Mitchell and Olson 1981; Kisielius 1982; Kisielius and Sternthal 1984). Dickson et al. (1986) have suggested that illustrations per se do not generate more cognitive elaboration, but when illustrations are linked to advertisements, the result is enhanced belief formation. It is therefore likely that the use of visual exemplar primers impacted the respondents' perceptions of primer-target comparison relevance and of primer-target congruity[34].

Another factor that may have confused the experimental manipulations is that established brands were used as country stereotype primers. The fact that Coco Chanel not only represents the famous personalized icon behind the Chanel brand, but is also used as the name for two perfumes "COCO" and "COCO MADEMOISELLE" could have confused the experimental manipulations. When evaluating the target brands, respondent may have remembered the primer of Coco Chanel as a perfume more than as a person.

Finally, the fact that the manipulation checks were conducted after the priming task could also have disturbed the outcome. Chanel N°5 was expected to produce contrast automatically and unconsciously in relation to CDF Perfume. When respondents were asked to rate how relevant it was to compare this primer with the target after the priming task, the foregoing priming procedure could have influenced the responses. Because of the foregoing judgments, respondents could have developed comparison anchors that influenced the comparison relevance ratings. The comparison relevance variable could even have been rated lower due to halo effect induced by the foregoing brand evaluations (Leuthesser et al. 1995; Churchill and Iacobucci 2002, p. 393).[35] Hence, although the manipulation checks were imperfect on the comparison relevant variable in the pilot study and in Experiment 1, the strict conclusion that they did not work as predicted should not be drawn. However, to ensure that the

[34] Mitchell and Olson (1981).suggest that the increased cognitive activity activated by pictorial information also impacts attitude formation, and that more favorable beliefs are formed when pictorial information is used.

[35] Traditionally, researchers have regarded the halo effect as a source of measurement error to be avoided (Leuthesser et al. 1995). Halo effects occur when there is "carry-over" from one judgment to another (Churchill and Iacobucci 2002).

experimental manipulations work as intended, a better approach in future research would be to do thorough pre-testing.

Future studies should be designed to obtain more knowledge about how moderate levels of primer-target congruity can affect priming effects. For instance, Mandler's (1982) congruity model could be applied in a future study. This model predicts that moderate incongruity stimulates more elaboration due to stronger motivation and ability to process slightly incongruent information. The focus of such a study would be: (1) the cognitive resources respondents are *able* to devote to the primed information during encoding and (2) the cognitive resources they are *motivated* to employ during judgment of a target brand. These two factors can potentially determine whether primed information stimulates assimilative or contrastive processes.

It would be interesting to investigate whether the identified contrast effect actually was caused by differences in the level of primer-target comparison relevance or by other types of contrast effects, which to some extent are driven by the amount of cognitive resources respondents apply to solve the priming task. With the present experimental design, it was hard to detect contrast effects caused by correction processes. To obtain deeper insight on this question one should manipulate the amount of cognitive resources applied to interpret the target brands in future research. Several priming studies have designed experiments to stimulate vigorous elaboration. The methods used range from *blatant priming* (e.g., Martin 1986; Moskowitz and Roman 1992), to priming of a *pre-determined goal* to process available information systematically (e.g., Martin and Achee 1992; Moskowitz and Roman 1992; Chartrand and Bargh 1996; Stapel et al. 1996). Another method is to select experimental groups that differ in *need-for-cognition* (e.g., Meyers-Levy and Tybout 1997). Through blatant priming, respondents are made aware of a biasing influence on their judgments. Manipulations can typically range from (1) exposing the primer very overtly, (2) the repeating the primer or (3) literally informing respondents that they are being primed. All these manipulations would stimulate respondents to develop individual theories of the bias, which affects their motivation to correct (Lombardi et al. 1987; Petty and Wegner 1992; Wegner and Petty 1995). In some studies, respondents are even explicitly told to correct for the prime (e.g., Petty and Wegner 1992, Moskowitz and Roman 1992; Stapel et al. 1996)[36].

[36] Several studies have manipulated respondents' ability to elaborate by limiting their cognitive capacity. In these studies cognitive load interfere with contrast effects because it disrupt respondents' ability to engage in correction processes (e.g., Li and Wyer 1994; Bargh 1994; Moskowitz and Skurnik 1999). Contrast by correction is observed depending on whether or not respondents are interrupted during the priming task (Martin 1986; Martin et al. 1990) or whether or not they are mentally busy solving additional tasks (e.g., Moskowitz and Skurnik 1999).

According to Moskowitz and Skurnik (1999), contrast from over-correction of a primers influence most likely occurs when respondents are aware of the biasing influence (e.g., Moskowitz and Roman 1992). The motivation of perceivers to be accurate in their judgments underpins this stream of research. A new view of consumer perception of marketing communications also deals with the question of how *consumer awareness* of marketing stimuli might influence subsequent judgments. This is referred to as the "consumer vigilance perspective" and it is understood as the perceivers' awareness that they are influenced by primes, for instance in an ad or in an ad context. As consumers are found to be increasingly watchful about advertising influences, the importance of this perspective has increased in consumer research (e.g., Friestad and Wright 1994; Stafford 2000). The view of consumer vigilance seems important to consider along with the classical and emerging priming literature. In future studies, it would be beneficial to combine the perspectives of consumer vigilance from the marketing literature, and priming from the psychology literature as a basis for consideration of the effects of heightened consumer vigilance on potential reactions to marketing influence tactics that incorporate priming techniques. In addition to more consideration to the cognitive resources applied and the underlying feature-matching processes posited to transpire, in response to priming attempts, it seems particularly sound for future consumer researchers to examine the effects of priming from the consumer vigilance perspective.

To better detect whether contrast was produced by automatic standard-of-comparison processes or by correction processes, the experimental design could have included measures of the time respondents used to make an evaluation of the target brand. As contrast by comparison is thought to be automatic and unconscious (e.g., Srull and Wyer 1980; Herr et al. 1983; Meyers-Levy and Sternthal 1993; Stapel et al. 1996, p. 439), it would require less processing time than contrast by correction. In the present study, the rational for this distinction was only described theoretically, and no experimental manipulations were applied to detect such differences in processing time. This is done, however, in some other priming studies (e.g., Moskowitz and Skurnik 1999). Future studies that are designed to test the contrast effects should include such time measures.

Another simple technique that could have been applied in this study was to record respondents' amount of cognitive processing by means of thought protocols (e.g., Crow et al. 1980). However, thought protocols are believed to disturb the predicted automatic priming effects and therefore thought protocols were not applied. Nonetheless, to better test for correction processes this technique could be employed in future studies. Another issue relates to the durability of the observed priming effects. The priming effects observed especially in the

low congruity condition, which are believed to be caused by heuristic processing, are predicted to be temporary (Petty et al. 1983; MacKenzie and Spreng 1992). While the last experiment demonstrated a shift in evaluations within the experimental period, the extent to which the observed priming effects endured was not documented. Therefore, more investigation is needed to assess whether the effects demonstrated in this research are robust over time.

The present study to some extent showed how exposure to a country stereotype primer affects brand personality. Although the present studies provided some new insight to this question, it still constitutes a particularly viable area for future research. To enhance the practical usefulness of priming research in branding, it is necessary to conduct further replications of the present studies, with other types of primers, to detect whether the key concepts hold true across different consumer segments, primers, product categories and target brands. Likewise, priming of brand personality, in other settings, by other primed concepts, may be particularly interesting for future research. It would also be interesting to look at whether primed personality dimensions will support the success of brand extensions or even of brand alliances. Attention to these issues can help develop a further and deeper understanding of the key influences associated with priming in brand building, and ultimately, lead to concrete empirically based guidelines on which to base future branding strategies.

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APPENDICES

Appendix I

TABLE OF LITERATURE

Table 39: Chronological summary of the most important studies of contextual priming effects

Study	Objective	Sample/stimuli	Theory	Method	Findings
Studies of contextual priming effects on impression formation and judgments of people					
Moskowitz and Skurnik (1999)	➢ Study of how contrast effects depend on the type of prime and the extremity of the primed information.	➢ Sample: 44 + 61 + 48 + 44 students ➢ Priming type: (1) trait concept (hostile), (2) exemplar (e.g. Mike Tyson) ➢ Target: Donald ➢ Primed features: "hostile" ➢ Primer characteristics: extreme. moderate	➢ Contextual priming of people stereotypes ➢ Trait or exemplar primer ➢ Primer extremity ➢ Person impression formation ➢ Target person ambiguity ➢ Cognitive processing mode	Four experiments: (1) 2 (prime type: exemplar or trait) x 2 (prime extremity: moderate, extreme) between subjects factorial design (2) 2 (prime type: exemplar or trait) x 2 (prime extremity: moderate or extreme) between subjects factorial design (3) 2 (prime type: exemplar or trait) x 2 (prime extremity: moderate or extreme) x 2 (interruption. cognitive load) between subjects factorial design (4) 2 (prime type: exemplar or trait) x 2 (prime extremity: moderate or extreme) between subjects factorial design ➢ ANOVA analyses	➢ Two previous models of priming effects, the standard of comparison and the set-reset models, make opposing predictions for the consequences of prime extremity on contrast effects. ➢ In experiment 1 and 2 it was found that each model is descriptively accurate but in response to different priming stimuli. ➢ Exemplar primes produced greater contrast when extreme than when moderate (consistent with the standard-of-comparison model). ➢ Trait term primes produced greater contrast when moderate than when extreme (consistent with the set-reset model). ➢ Experiment 3 and 4 demonstrate that the cognitive mechanisms through which contrast is produced are distinct for the two types of primes.
Stapel and Koomen (1998)	➢ Study of how stereotype activation results in (counter) stereotypical judgments as a result of priming stereotype-relevant traits and exemplars.	➢ Sample: 125 + 171 students ➢ Priming type: (1) trait concept, (2) male exemplars, (3) female exemplars ➢ Target gender: ambiguously described person – male / female ➢ Primed features: "dependent"	➢ Contextual priming of people stereotypes ➢ Person impression formation ➢ Interpretation applicability and social category applicability of trait and exemplar primers	Two experiments: (1) 4 (prime type: trait, female exemplar, male exemplar, neutral) x 2 (target gender: male, female) between subject design. (2) 3 (prime type: trait, female exemplar, male exemplar) x 2 (target gender: male, female) x 2 (prime valence: neutral, dependent) between subject design. ➢ ANOVA analyses	➢ The study demonstrates that accessible stereotype-relevant knowledge can yield stereotypical (assimilative) but also counter stereotypical (contrastive) judgments. ➢ Primed stereotyped information that is relevant to interpretation of a target stimulus (interpretation applicability) and matches the target's social category is likely to be used as an interpretation frame and yield assimilation. ➢ When such information also possesses features making it likely to be used as a comparison standard, contrast will ensue

Stapel and Koomen (1997)	➢ Study of interpretation or comparison effects in impression formation by priming exemplars	➢ Sample: 72 + 72 Dutch students ➢ Priming type: (1) person/product exemplars ➢ Target persons: ambiguously described Donald / a good friend ➢ Primed features: "hostile" / "friendly" ➢ Primers: Stalin or "Calgon". "Gandhi" or "Woolite"	➢ Contextual priming of people stereotypes ➢ Person impression formation ➢ Target person ambiguity and familiarity	Two experiments: (1) 2 x (person exemplar valence: hostile, friendly) x 2 (trait concept: mentioned, not mentioned) between subjects design. (2) 2 (detergent exemplar valence: hostile, friendly) x 2 (trait concept: mentioned, not mentioned) between subjects design. ➢ ANOVA analyses	➢ The study demonstrates that when priming stimuli consist of (1) trait concepts and person exemplars, (2) trait concepts and non-person exemplars, (3) only non-person exemplars, assimilation in judgments of an ambiguous person follow. ➢ When priming stimuli consist of (4) only person exemplars, contrast in judgment of both ambiguous and well-known persons ensues.
Stapel. Koomen and Van Der Pligt (1997)	➢ Study of how person judgments are impacted by trait versus exemplar priming.	➢ Sample: 96 + 76 + 120 + 198 Dutch students ➢ Priming type: (1) trait, (2) person exemplar, (3) animal exemplar ➢ Target persons: ambiguously described Donald / a good friend ➢ Primed features: "hostile" / "friendly" ➢ Primers: Stalin, shark, Gandhi, puppy	➢ Person impression formation ➢ Primer comparison relevance ➢ Primer distinctness ➢ Primer extremity ➢ Target person ambiguity and familiarity	Four experiments: (1) 3 x groups (hostile, friendly, no trait) between subjects design (2) 2x (hostile, friendly) x 2 (comparison relevance: person, animal) between subjects design (3) 2 (prime type: trait, person exemplar) x 2 (prime valence: hostile, friendly) x 2 (prime time: Pre-information, post-information) between subjects design. (4) 2 (prime type: trait, person exemplar) x 2 (prime valence: hostile, friendly) x 2 (prime extremity: moderate, extreme) between subjects design. ➢ ANOVA analyses	➢ Four experiments demonstrate that when primed category information is used as an interpretation frame, assimilative judgments of ambiguous stimuli are more likely. ➢ When category information is used as a comparison standard, contrastive judgments of both ambiguous and well-known stimuli are more likely, provided that the information is sufficiently extreme.
Stapel, Koomen and Van Der Pligt (1996)	➢ Study of how trait concepts versus actor-trait links impact subsequent	➢ Sample: 388 + 154 Dutch students ➢ Priming type: positive and negative traits ➢ Target persons: positive/negative paragraphs that describe characteristics and activities of	➢ Person impression formation ➢ Target person ambiguity ➢ Priming of trait concepts versus	Two experiments: (1) 3 x (prime type: positive. negative, irrelevant) x 2 (instruction condition: memory, impression) x 2 (personalization of trait-	➢ It is proposed that trait inferences referring to abstract behavior labels will act as general interpretation frames and lead to assimilation in judgments of an ambiguous target. ➢ When referring to a specific actor-trait link they are used as scale anchors and lead to

Stapel, Koomen and Van Der Pligt (1996) **(continued)**	person judgments.	ambiguous Donald ➢ Primed features: "persistent"/ "stubborn" , "confident"/ "conceited"	actor-trait links ➢ Assimilation ➢ Contrast (by standard-of-comparison)	implying sentences: impersonal, personal) factorial between subjects design (2) 3 (prime type: positive. negative, irrelevant) x 2 (instruction condition: memory, impression) x 3 (context information: person, situation, control) factorial between subjects design ➢ ANOVA analyses	contrast. The study demonstrates that participants who were instructed to memorize trait-implying sentences showed assimilation, and participants who were instructed to form an impression of the actors in these sentences showed contrast. ➢ Exposure to trait-implying sentences that described actors with real names and were accompanied with photos of the actors resulted in contrast under both memorization and impression formation. ➢ Contrast ensued when trait-implying sentences were accompanied with information that suggested a person attribution, whereas assimilation ensued when that information suggested a situation attribution, independent of processing goal.
Higgins and Brendl (1995)	Study of accessibility and applicability and some activation rules that influence judgments	➢ Sample: 49 + 269 students ➢ Primed traits: "conceited", "self-confident" ➢ Priming task: priming-to-stimulus delay (short/long) ➢ (Non)-chronic accessibility of primed construct ➢ Primed trait: conceited, self-confident ➢ Description of ambiguous target person: He … / she … ➢ Primer-target applicability: vague, ambiguous, contrary with primed trait	➢ Contextual priming of stereotype personality traits. ➢ Target person impression making	Two experiments: (1) Pre-test to classify subjects as "chronics" and "non-chronics", 2 (contextual priming, no contextual priming) x 3 (high/low applicability) between x 3 (a phrase task, a word task a story task) within subjects design. (2) 2 ("chronics"/ "non-chronics") x 2 (contextual priming boy/girl, no contextual priming) x 2 (priming delay: short/long) x 3 (stimulus description: vague, ambiguous, contrary) between subjects factorial design ➢ ANOVA analyses	➢ The study shows that individuals with varying levels of "chronic accessibility" for the construct "conceited" judged a target person and gave spontaneous impressions of the target's behavior. ➢ "Conceited" was either primed or not, and the priming to stimulus delay was either short or long. ➢ The stimulus behaviors also varied in applicability to the construct "conceited"- (related vaguely, ambiguously, or contrary). ➢ It was found that extremely vague target behaviors yielded conceited-related spontaneous impressions when the accessibility of the construct conceited was maximized through contextual priming, short priming –to-stimulus delay, and relatively high levels of chronic accessibility. ➢ The result supports the "activation rule" that strong accessibility can compensate for weak applicability.

Petty and Wegner (1993)	Study of flexible correction processes in social judgments.	➢ Sample: 23 + 86 + 80 + 172 students ➢ Primer features: positive/natural, abstract/specific anchor, no correction cue/blatant or subtle correction cue ➢ Priming of: trait concepts, mood, endorsers, ideas (holiday dream)	➢ Contextual priming of trait concepts, mood and endorsers ➢ Target person ambiguity ➢ Assimilation and contrast as predicted by the standard-of-comparison model and by the set-reset model	Four experiments: (1) five context and five judgments - 5 (trait, positive mood, idea of dream vacation, attractive people, room color) within subjects design (2) 2 (context: extremely positive, neutral) x 2 (instruction: correction, none) between subjects design (3) 2 (scale anchor: abstract. specific) x 2 (instruction: correction, none) between subjects design (4) 2 (context: extremely positive, neutral) x 3 (correction cue: no cue, subtle cue, blatant cue) between subjects design. ➢ ANOVA/ANCOVA analyses	➢ Two experiments shows evidence of flexible correction processes in contextual priming. Experiment 1 show that either contrast or assimilation can be the natural effect of a context depending upon the specific context and target items paired. ➢ Experiment 2 shows that contrast was produced in a "no-correction" condition. When an explicit instruction to correct for the context was made, subjects adjusted their judgments towards rather than away from the contextual items. ➢ Experiment 3 shows that corrections observed with explicit instructions were not due to changes in response language. ➢ Experiment 4 shows that more subtle correction cues produced the same correction effects.
Herr (1986)	Consequences of priming on judgment and behavior	➢ Sample: 160 + 80 students ➢ Primed traits: hostile/non-hostile ➢ Primer characteristic: moderate/extreme ➢ Ambiguity of target: real/unreal animals ➢ Type of primer: exemplar primer ➢ Behavioral manipulations: "playing the game"	➢ Assimilation or contrast effects in trait judgments of target person's ➢ Demonstration of prime consistent behavior ➢ Priming in "a game of prisoners dilemma" setting	Two experiments: (1) 2 (primer extremity: extreme/moderate) x 2 (primed category: hostile/ non-hostile) x 2 (trait listing/ no-trait listing) between subjects design. (2) 2 (primer extremity: extreme/moderate priming exemplars) x 2 (primed category: hostile/non-hostile) between subjects x 2 (dyad member: perceiver/target) x (block: first/second half of trials in the prisoners dilemma) within subjects factorial design. ➢ ANOVA analyses	➢ The study shows judgmental and behavioral consequences of priming of social categories. Experiment one shows assimilation and contrast effects of judgment of a target person's hostility obtained following priming with exemplars of, respectively, moderate and extreme levels of the category *hostility*. Experiment two replicates the findings and-. in addition, demonstrates that subjects behave consistently in their evaluations of the target person in a social interaction.

Herr. Sherman and Fazio (1983)	Assimilation and contrast effects as consequences of priming	➢ Sample: 80 + 160 students ➢ Primer features: ferocious/un-ferocious, small/large ➢ Ambiguity of target: real/unreal animals ➢ Type of primer: exemplar primer	➢ Contextual priming effects ➢ Assimilation or contrast effects of animal exemplar primers ➢ The role of extremity of contextual primer	Two experiments: (1) 2 (target object: real vs. unreal animals rated first) x 2 (primer extremity: extreme vs. moderate) x 2 (primed trait: ferocious/un-ferocious) x 2 (target category: real animal/unreal animal) between subjects design. (2) 2 (target object: real vs. unreal animals rated first) x 2 (primer extremity: extreme vs. moderate) x 2 (target trait: small/large) x 2 (target category: real animal/unreal animal) between subjects design ➢ ANOVA analyses	➢ The study shows assimilation and contrast effects of priming on subsequent judgments of an unrelated task. An interaction between ambiguity of judged stimuli (real vs. unreal animals) and extremity of primed exemplars (moderate vs. extreme levels of ferocity or size) was revealed. Assimilation effects occurred only when moderate exemplars were primed and ambiguous stimuli judged. Contrast effects occurred when extreme exemplars were primed and ambiguous stimuli judged, irrespective of extremity of the primed exemplar, when unambiguous stimuli were judged.

Table 39 continues:

Study	Objective	Sample/stimuli	Theory	Method	Findings
Studies of contextual priming effects on target products or brands					
Levin. I. P. and Levin A.M. (2000)	➢ Studying the role of brand alliances in the assimilation of product evaluations	➢ Sample: 80 + 48 + 58 students ➢ Target product category: Ice cream restaurant ➢ Primer product category: hamburger restaurant ➢ Stimuli: a) two restaurants described as a brand alliance, b) description of restaurant has the same or lesser amount of information, c) the positive/negative valence of the description of the context restaurant	➢ Contextual priming effects - assimilation or contrast. ➢ A net contextual priming effect ➢ Brand alliances	Three experiments: (1) 2 (target specification: well specified/not well specified) x 2 (branding condition: dual branding, non dual branding) between subjects design (2) 2 (context valence: negative context, positive context) x 2 (branding condition: dual branding, separate brands) x 2 (target quality: food quality, service quality) between subjects design (3) 3 (strength of alliance: share food + service + preparation, share only service, share neither) x 2 (context valence: positive, negative) x 2 (context cue: food quality ratings, service quality ratings) mixed design ➢ ANOVA analyses	➢ Results reports a model in which inferences about the quality of an incompletely described target product arise from the assumed similarity between target and context, which is directly related to the degree of linkage between the two brands. ➢ These inferences include both specific attribute values and global evaluations of quality.
Stapel. Koomen and Velthuijsen (1998)	➢ Test of assimilation and contrast effects as a result of comparison relevance, distinctiveness and accessibility of primed information	➢ Sample: 62 + 120 + 124 students ➢ Stimuli: (1) priming attributes, (2) priming non-target versus target exemplars, (3) priming exemplars + attributes ➢ Target product: restaurants and clothing stores ➢ Target product features: new or familiar, elegant, or casual ➢ Exemplar primers: 1) Amstel Hotel Restaurant La rive / McDonalds, 2) Frank Govers design / Scholten	➢ Contextual priming effects of primed attributes (traits) versus primed target category exemplars ➢ Comparison relevance and distinctness of primed information.	Three experiments: (1) 2 (primed trait concepts: elegant, casual) x 2 (target familiarity: new/familiar restaurant) between subjects design. (2) 2 (type of primer: target category - names of elegant or casual restaurants, non-target categories - names of elegant or casual clothing stores) x 2 (target familiarity: new/familiar) x 2 (target:	➢ The study shows that accessible information yields contrastive judgment effects when the activated information is sufficiently distinct and comparison relevant to be used as a scale anchor. ➢ Thus, contrast is only produced in the target category exemplar condition. ➢ Accessible information yields assimilative interpretation effects when the activated information is relatively indistinct and comparison irrelevant. ➢ Thus, assimilation is produced in the remaining conditions (trait, non-target

Stapel. Koomen and Velthuijsen (1998) **(continued)**				restaurant/clothing store) between subjects design. (3) 2 (type of primer - attributes + exemplars: target category - names of elegant or casual restaurants + trait, non-target categories - names of elegant or causal clothing stores + trait) x 2 (target familiarity: new/familiar) x 2 (restaurant/ clothing store) between subjects design. ➢ ANOVA analyses	category exemplars, target category exemplars + trait, and non-target category exemplars + trait).
Wänke. Bless and Schwarz (1998)	➢ Studying context effects in product line extensions.	➢ Sample: 49 + 64 students ➢ Test product: sports car ➢ Fictitious parent brand: Winston ➢ Brand extension: compact car ➢ Brand extension names: continuation - Winston Silverhawk, Silverpride, Silverstar, / discontinuation - Winston Miranda ➢ Primed attributes: typical - sports car, great design, fast, high quality, advanced technology, atypical - safe, family car, comfortable. roomy, practical	➢ Contextual priming effects – contrast and assimilation. ➢ Product line extension effects ➢ Consumer expertise as moderator	Two experiments: (1) 2 (typicality of primed dimension: typical/atypical) x 2 (brand continuation, dis-continuation) between subjects design. (2) 3 (continuation. control. discontinuation) x 2 (target familiarity: high/low) between subjects design ➢ ANOVA analyses	➢ Two experiments illustrate that the use of brand information in evaluations of a brand extension can be influenced by superficial characteristics of the extension such as its name. ➢ A compact car manufactured by a sports car company received a more sports-car- typical evaluation when its name reflected continuation rather than discontinuation of previous models. ➢ Name discontinuation elicited contrast to previous models and this contrast effect was more pronounced for novices than for experts.
Meyers-Levy and Tybot (1997)	➢ The role of cognitive resources in contextual priming effects at encoding and judgment of products	➢ Sample: 81 + 77students ➢ Test product: soft drinks/fruit juice ➢ Contextual primers: (1) positive or negative statements ➢ Cognitive resources: task interruption procedure	➢ Contextual priming effects ➢ Assimilation in encoding and contrast due to overcorrection. ➢ Available cognitive resources (NFC)	Two experiments: (1) 2 (primer valence: positive/negative) x 2 (cognitive resources required: few/many) between subjects x 2 (NFC: high/low) factorial design. (2) 2 (primer valence: positive/negative) x 2 (cognitive resources required: high consensus/ low consensus) between	➢ The study shows that assimilation occurs spontaneously during encoding. Contrast occurs only when the contextual influence is viewed as inappropriate and efforts to parcel out the context results in overcorrection. The results lead to a modified version of Martin's set/reset model, where the cognitive resources available at encoding determine the type of context effect and the cognitive resources at judgment determine whether the encoding effect of context is reflected in product evaluations.

Meyers-Levy and Tybot (1997) **(continued)**				subjects x 2 (NFC: high/low) x 2 (pre- and post-judgment type: overall affective evaluations/feature evaluations) factorial design ➢ ANOVA analyses	
Meyers-Levy and Sternthal (1993)	➢ Test of a two-factor explanation of assimilation and contrast effects.	➢ Sample: 149 subjects ➢ Test product: An ad of a restaurant ➢ Contextual primers: (1) two restaurants –McDonalds (casual) and Le Francais (elegant), (2) two clothing stores – The Gap (casual) and Gucci (elegant) ➢ Primed attributes: casual (negative), elegant (positive)	➢ Contextual priming effects - contrast and assimilation. ➢ Category overlap/ similarity ➢ Cognitive resources invested by clarifiers and simplifiers	One experiment: (1) 2 (simplifiers/clarifiers) x 2 (category overlap: low, high) x 2 (match on primed attribute elegant/casual: low, high) between subjects factorial design ➢ MANOVA analyses	➢ Associations to a contextual cue were contrasted with those of an advertised object when the cognitive resources devoted to the message processing were substantial ➢ Contrast was also produced when the categories to which the contextual cue and the advertised object belonged displayed low overlap. ➢ The absence of either of these factors prompted assimilation.
Boush (1993)	➢ Study of how advertising slogans can prime evaluations of brand extensions	➢ Sample: 174 under-graduate students ➢ Stimuli: Three advertising slogans signaling – (1) nutrition. (2) spiciness, and (3) high quality ➢ Parent brand: soups ➢ Brand extensions: baby food steak sauce, pickles, spaghetti with meat sauce, breakfast cereals, and frozen vegetables	➢ Contextual priming of ad slogans. ➢ Brand extension effects ➢ Effects of match with brand slogans	One experiment: (1) 3 (primer slogan: nutrition, spiciness, high quality) between subjects x 6 (target brand extensions) within subjects factorial design	➢ Advertising slogans can support or undermine a brand extension strategy by drawing attention to attributes that the new product either has in common or that conflict with the existing product.
Lynch et al. (1991)	➢ Study of contrast effects as changes in mental representations or in the anchoring of rating scales	➢ Sample: 105 + 241 students ➢ Target product: automobiles ➢ Primer stimuli: "core sets" of car profiles ➢ Primed attributes: gas mileage (extended up/down), expensive/ moderate/low price	➢ Contrast as contextual priming effect ➢ Contrast as changes in mental representations or changes in the anchoring of rating scales. ➢ Consumer expertise as determinant of type of contrast effect	Two experiments: (1) 4 conditions (attribute-range manipulations with 4 context sets: control/ 2 groups of gas mileage attributed extended upward. the price attribute extended upward) factorial design factorial design. (2) 2 (primer: expensive/ moderate) x 2 (task order: price estimates first, purchase likelihood rankings	➢ Two empirical studies reveal how contrast effects can be explained by changes in mental representations or in the anchoring of rating scales. In study 1 mean overall ratings of a "core set" of car profiles showed contrast effects due to manipulations of the range of gas mileage and price in several sets of "context profiles". ➢ Diagnostic tests implied that these effects reflected changes in response scale anchoring rather than in mental representations. In study two consumers high and low in knowledge of automobile prices showed equally large

Lynch et al. (1991) **(continued)**				second vs. the reverse order) x 2 (expertise: high/low) between subjects factorial design ➢ ANOVA analyses	contrast effects on ratings of the expensiveness of a "core set" of real cars. Diagnostic tests showed that these effects reflected true changes in mental representations for low-knowledgeable consumers but only changes in scale anchoring for more knowledgeable consumers
Herr (1989)	➢ Study of how primed cognitive categories of price may affect product judgments.	➢ Sample: 129 + 96 students ➢ Test product: automobiles ➢ Primers: four groups of priming exemplar car brands with five price levels	➢ Contextual priming of price. ➢ Effects of product class knowledge ➢ Gender differences	Two experiments: ➢ (1) 2 (low/high price) x 2 (ambiguous/unambiguous stimuli) x 2 (moderate/ extreme category) between subjects design. ➢ ANOVA analysis	➢ The study shows how primed cognitive categories of price affect product judgments. ➢ It also shows that this effect is influenced by individual differences in consumer knowledge.

Table 39 continues:

Study	Objective	Sample/stimuli	Theory	Method	Findings
Studies of contextual priming effects of ad context on target products or brands					
Mandel and Johnson (2002)	➢ Test of Web pages as visual primes influence product choice differently for experts and novices	➢ Sample: 76 students + 385 internet users ➢ Web page primer: red or orange flame-like background - to prime safety/quality, green background with dollar or penny signs - to prime price/money, blue background with fluffy clouds - to prime comfort ➢ Test products: cars and sofas	➢ Contextual priming effects of visual ad context (web page) ➢ Priming effects on product choice ➢ Consumer expertise as moderator	Two experiments: (1) 2 (target product: car/sofa - within) x 2 (primer: safety/price) between subjects factorial design. (2) 2 (target product: cars/sofa - within) x 3 (primer: money / quality / plain -between subjects) factorial design ➢ ANOVA analysis	➢ Two online experiments reveal that the background pictures and colors of a web page can affect consumer product choice. ➢ These effects occurred for both experts and novices, albeit by different mechanisms. For novices, priming drives differences in external search that, in turn, drive differences in choice. For experts, differences in choice that are not mediated by changes in external search are observed.
Schmitt (1994)	➢ Test of priming effects by a visual television program context on visual ad components	➢ Sample: 31 + 37 students ➢ Test product: public service, clothing ➢ Primer: Exp.1 - reflection on personal values/ reflection on social values. Exp.2 - positive image adjectives/negative image adjectives/no image concept ➢ Target ad: ad with the slogan "drugs at work" ➢ Dependent variables: general positive valence, attitude towards the ad, attitude towards the ad slogan	➢ Contextual priming effects on visual ad content ➢ Contextual priming effects of visual ad context	Two experiments: (1) 2 conditions (primer: reflection on personal values/reflection on social values) between subjects factorial design. (2) 3 conditions (primer: positive/negative/no image concept) between subjects factorial design ➢ MANOVA/ANOVA	➢ Two experiments provide evidence for priming effects on visual components of one public service and one clothing advertisement. ➢ This happened as an unconscious cognitive process suggesting the presence of implicit memory effects.
Yi (1993)	➢ Test of the moderating role of prior knowledge on contextual priming effects in print advertisements.	➢ Sample: 120 business school students ➢ Test product: automobile ➢ Primed product attributes: (1) safety and (2) fuel economy ➢ Product class knowledge: (low. moderate, high) ➢ Ad context primers: two themes to prime the two attributes: 1)"How safe is air travel", 2) "Oil's new maverick."	➢ Contextual priming of ad context. ➢ Effects of ad context on advertising effects. ➢ Effects of product class knowledge on advertising effects.	One experiment: (1) 2 (product attributes: safety, fuel economy) x 3 (product knowledge: high, moderate, low) factorial between subjects design ➢ MANOVA analyses	➢ The study shows that ad context can inhibit or facilitate the effects of a particular ad on brand evaluations and that the effects vary as a function of consumer knowledge. ➢ Contextual priming had pronounced effects on brand evaluations among moderate-knowledge subjects, but the effects on low- and high-knowledge subjects diminished sharply.

Yi (1990a)	➢ Study of cognitive and affective priming effects of the ad context for print advertisements.	➢ Sample: 72 students ➢ Stimuli: ad context ➢ Target brand: fictitious car ➢ Primed attributes: safety/fuel economy ➢ Primed affect: positive/ negative ad context ➢ Dependent variables: (1) attitude towards the ad. (2) attitude towards the brand and (3) purchase intentions	➢ Contextual priming of product attributes and of feelings. ➢ Effects of ad context on advertising effects.	One experiment: (1) 2 (primed product attributes: safety/ fuel economy) x 2 (primed affect: positive/ negative tone of ad context) factorial between subjects design. ➢ MANOVA/ANOVA analysis	➢ One experiment shows that advertising effectiveness was influenced by the ad context. ➢ The cognitive context, which primes product attributes, determined the type of interpretation given to product information in the ad, and thereby guided evaluations of the advertised brand. ➢ The affective context, which triggers emotional reactions, also influenced brand evaluations. Yet, only the affective priming effects worked primarily via attitude towards the ad.
Yi (1990b)	➢ Study of how the ad context can work as primes and affect the processing of ambiguous product information in print ads.	➢ Sample: 40 + 120 students ➢ Stimuli: ad context ➢ Target brand : PC 3000 ➢ Fictitious brand names: "Versa-Com". "EZ-Com" ➢ Contextual primer ad message: (1) "I did not know it could do that". "Our rills requires no skills" ➢ Primed features: "user-friendly" (negative interpretation condition) "versatile"(positive interpretation condition)	➢ Contextual priming of product attributes. ➢ Effects of ad context on advertising effects.	Two experiments: (1) 1 (target brand: PC-3000) x 2 (prime ad: "Versa-Com"/ versatility, "EZ-Com"/ease-of- use) between subjects factorial design (2) 1 (target brand: PC-3000) x 2 (prime ad: "Versa-Com"/ versatility, "EZ-Com"/ease-of- use) between subjects factorial design ➢ ANOVA/LISREL analysis	➢ Two experiments show that specific attributes relevant to evaluating an advertised brand varied in their accessibility as a function of the primed context and that these variations influenced brand attitudes.

Table 39 continues:

Study	Objective	Sample/stimuli	Theory	Method	Findings
Studies of contextual priming effects of country-of-origin cues on target products					
Hong and Wyer (1990)	➢ Effects of time interval between knowledge of a products CoO and information about its specific attributes	➢ Sample: 256 business students. eight subgroups ➢ Stimuli: attribute information ➢ Test product: PC and VCR ➢ Two Western and two Eastern countries [West Germany (high quality products), Mexico (low quality products), Japan (high quality products), Philippines (low quality products)]	➢ Contextual priming of country-of-origin ➢ Impression making by contextual priming ➢ Interpretation of attribute information ➢ Assimilation and contrast effects	One experiment: (1) 2 (country information: favorable/unfavorable) within-subjects variable x 2 (information delay: none / 1 day) x 2 (judgment delay: none/1 day) x 2 (attribute information: favorable/ unfavorable) x 2 (priming task: country first/country last) between subjects factorial design ➢ ANOVA analysis	➢ When CoO and intrinsic attribute information were presented in the same experimental sessions, subjects perceive CoO as simply another product attribute. ➢ When presented with a time interval, CoO had a greater influence on product evaluations and on interpretation of attribute descriptions.
Hong and Wyer (1989)	➢ Effects of CoO and product attribute information on product evaluation in an information processing perspective	➢ Sample: 128 college students ➢ Stimuli: attribute information ➢ Test product: PC and VCR ➢ Two Western and two Eastern countries [West Germany (positive), Mexico (negative). Japan (positive), South Korea (negative)]	➢ Contextual priming of country-of-origin cues ➢ Heuristic vs. piecemeal information processing	One experiment: (1) 2 (country information: favorable/unfavorable) within-subjects variable x 2 (processing mode: impression/ comprehension) x 2 (attribute information: desirable/undesirable) x 2 (priming task: country first/country last) between subjects factorial design ➢ ANOVA analysis - as a test of differences between proportions (due to dichotomous data)	➢ The CoO not only had a direct influence on product evaluation, but also appeared to stimulate subjects to think more extensively about other product attribute information, augmenting the latter's effect. ➢ CoO used as a heuristic basis for judgments were not supported. ➢ The influence of information presentation order was not supported.
Li and Wyer (1994)	➢ Focus on priming effects of country-of-origin, with a distinction between informational and standard-of-comparison processes.	➢ Sample: 123 college students ➢ Stimuli: attribute information ➢ Test product: familiar wrist watch, unfamiliar personal computer ➢ Countries: two favorable and two unfavorable countries. [Switzerland (positive for wrist watch), Japan (positive for personal computers), Mexico (negative for wrist watches). Brazil (negative for personal computers)].	➢ Contextual priming of country-of-origin cues ➢ Test of processing modes of CoO cues: (1) as a product attribute, (2) as a signal, (3) as a heuristic and (4) as a standard-of-comparison.	One experiment: (1) 2 (decision importance: high/low) x 2 (target product: familiar/ unfamiliar) x 2 (CoO: positive/ negative) x 2 (information load: high/low) x 2 (attribute information: favorable/ unfavorable)	➢ The manner in which CoO is used in evaluations was expected to depend on subjects' familiarity with the product being judged, the amount of attribute information available, the decision importance and the order in which CoO and intrinsic attribute information was received. CoO appeared to function in three of the four ways considered, but there was little evidence that it served as a heuristic in any condition.

Appendix II

STATISTICS FROM THE PILOT STUDY

Table 3: Instructions, dimensionality and consistency of dependent variables- DKNY/MARLBORO

Items	Scales (all scores measured on a 7 point rating scale)	h^2	Factor 1	- Eigenvalue - % variance explained - Alpha
2. Items of target brand beliefs:				
a. Please rate the extent to which target brand Y is characteristic of US western lifestyle / US urban lifestyle.	a. to a little/ large extent	.910	.954	1.82 91.0%
b. Please rate to what extent US western lifestyle / US urban lifestyle is a good description of target brand X.	b. bad/good description	.910	.954	α =.90
(Modified - Gürhan Canli and Maheswaran 2000)				

Note: * Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

Table 4: Instructions, dimensionality and consistency of independent variables- DKNY/MARLBORO

Items	Scales (all scores measured on a 7 point rating scale)	h^2	Factor 1	Factor 2	- Eigenvalue - % variance explained - Alpha
1. Primer-target congruity					
a. Primer X shares many similarities with target brand Y!	a. totally disagree/ totally agree	.649	.759*		3.29 54.8%
b. Please indicate to what extent target brand Y matches attributes of primer X	b. not at all/highly matching	.811	.867		Σ=54.8%
c. Please indicate to what extent primer X has much in common with target brand Y *(modified from Kirmani and Shiv 1998)*	c. little/much in common	.683	.808		α = .78
2. Primer-target comparison relevance					
a. Please indicate how easy you think it is to compare primer X with target brand Y	a. very difficult/ very easy	.765		.846	1.05 17.6%
b. Please indicate the degree to which you find it relevant or irrelevant to compare target brand Y with primer X.	b. irrelevant/ relevant	.636		.748	Σ=72.4%
c. I think it is very easy to compare target brand Y with primer X! *(modified - Gürhan Canli and Maheswaran 2000, but item c was developed by study researcher)*	c. totally disagree/ agree	.799		.873	α =.81

Note: * Factor scores < 0.30 are not reported. Exploratory factor analyses with Varimax rotation and Principal Component as the extraction method.

Table 5: Descriptive statistics for the DKNY sample and the MARLBORO sample

DKNY

Variable	Mean	Sd.	Kurtosis	Skewness	Min	Max	N
Dependent variables							
Target brand beliefs	2.46	1.28	.63	.94	1	7	134
Manipulated variables							
Primer-target congruity	2.36	1.10	-.23	.80	1	5	132
Primer-target comparison relevance	2.56	1.28	.18	.82	1	7	134

MARLBORO

Variable	Mean	Sd.	Kurtosis	Skewness	Min	Max	N
Dependent variables							
Target brand beliefs	2.12	1.21	.42	1.12	1	6	130
Manipulated variables							
Primer-target congruity	2.58	1.16	.82	.94	1	7	130
Primer-target comparison relevance	2.52	1.21	.26	.77	1	7	130

Table 6a: Correlation matrix for the DKNY sample

Variables	**1**	**2**	**3**
Dependent variables			
1. Target brand belief	-		
Manipulated variables			
2. Primer-target congruity	.35[a]	-	
3. Primer-target comparison relevance	.16[c]	.37[a]	-

NOTE: a = p < .01, b = p < .05, c = p < .10

Table 6b: Correlation matrix for the Marlboro sample

Variables	**1**	**2**	**3**
Dependent variables			
1. Target brand belief	-		
Manipulated variables			
2. Primer-target congruity	.27[a]	-	
3. Primer-target comparison relevance	.33[a]	.56[a]	-

NOTE: a = p < .01, b = p < .05, c = p < .10

Table 7: Test of assumptions of univariate homogeneity in the DKNY and in the MARLBORO sample

Variables	DKNY	
	LEVENE's - test of equality of error variances	
Dependent variables		
Target brand beliefs	F = 2.630	p = .026
Manipulated variables		
Primer-target congruity	F = 5.097	p = .002
Primer-target comparison relevance	F = 0.664	p = .575
Variables	MARLBORO	
	LEVENE's - test of equality of error variances	
Dependent variables		
Target brand beliefs	F = 5.762	p = .001
Manipulated variables		
Primer-target congruity	F = 0.827	p = .482
Primer-target comparison relevance	F = 1.161	p = .327

Appendix III

STATISTICS FROM EXPERIMENT 1

Table 13: ANOVA test of group differences in moderating variable

Variable	F-ratio	Sig.	CDF Perfume		CDF Mountain Boots		Scheffe's comparisons	Sig.
			Chanel N°5 (A)	Coco Chanel (B)	Chanel N°5 (C)	Coco Chanel (D)		
							A > B	.979
							A < C	.140
Primer-target extremity	4.010	.009	4.895 * *(Sd.=1.2)* *(N = 38)*	4.774 *(Sd.=1.2)* *(N = 42)*	5.509 *(Sd.=1.3)* *(N = 39)*	5.371 *(Sd.=1.2)* *(N = 35)*	A < D	.440
							B < C	.120
							B < D	.220
							C > D	.790

NOTE: * The test scores are represented as experimental group mean scores

Table 14: Descriptive statistics for entire sample

Variable	Mean	Sd.	Kurtosis	Skewness	Min	Max	N
Dependent variables							
Target brand beliefs	2.74	1.28	-1.15	.17	1	6	157
Manipulated variables							
Primer-target congruity	2.42	1.17	-.67	.59	1	6	157
Primer-target comparison relevance	2.24	1.27	.50	1.07	1	7	158
Moderating variable							
Primer-target extremity	5.15	1.27	-.60	-.32	1.5	7	154

Table 15: Correlation matrix for the CDF Perfume and the CDF Mountain Boots samples

Variable	1	2	3	4
Dependent variables				
1. Target brand beliefs	-			
Manipulated variables				
2. Primer-target congruity	.47[a]	-		
3. Primer-target comparison relevance	.48[a]	.32[a]	-	
Moderating variable				
4. Primer-target extremity	-.36[a]	-.23[a]	-.26[a]	-

NOTE: a = p < .01, b = p < .05, c = p < .10

Table 16: Test of assumptions of univariate homogeneity

Variables	LEVENE's - test of equality of error variances	
Dependent variables		
Target brand beliefs	F = 4.051	p = .008
Manipulated variables		
Primer-target comparison relevance	F = 7.307	p = .000
Primer-target congruity	F = 5.211	p = .002
Moderating variable		
Primer-target extremity	F = 0.097	p = .967

Table 18: Kruskal-Wallis one-way ANOVA of variance for group differences in primer-target congruity and primer-target comparison relevance

Variable	CDF Perfume		CDF Mountain Boots		Corrected for ties		
	Chanel N°5 (A)	Coco Chanel (B)	Chanel N°5 (C)	Coco Chanel (D)	Chi-square	df.	Sign.
Primer-target congruity	91.88 *	98.70	56.23	68.70	23.696	3	.000
Primer-target comparison relevance	91.29	104.48	56.13	65.18	30.247	3	.000

NOTE: * The test scores are represented as experimental group mean ranks

Table 20: Kruskal-Wallis one-way ANOVA of differences in target brand evaluations across all groups

Variable	CDF Perfume		CDF Mountain Boots		Corrected for ties		
	Chanel N°5 (A)	Coco Chanel (B)	Chanel N°5 (C)	Coco Chanel (D)	Chi-square	df.	Sig.
Target brand beliefs	83.99	103.54	57.51	69.58	23.965	3	.000

NOTE: * The test scores are represented as experimental group mean ranks

Appendix IV

STATISTICS FROM EXPERIMENT 2

Table 29: Descriptive statistics for the entire sample

Variable	Mean	Sd.	Kurtosis	Skewness	Min	Max	N
Dependent variables							
1. Target brand beliefs	2.57	1.25	-.89	.42	1.00	6.00	123
2. Multi-item personality traits	3.20	1.10	-.26	.28	1.00	6.00	123
Manipulated variables							
3. Primer-target congruity	2.57	1.23	1.39	.98	1.00	7.00	127
4. Primer-target comparison relevance	2.53	1.36	1.00	1.13	1.00	7.00	126
Moderating variable							
5. Product category knowledge	3.50	.63	2.86	-1.37	1.00	5.00	126

Table 30: Correlation matrix for the CDF Perfume and the CDF Mountain Boots sample

Variable	1	2	3	4	5
Dependent variables					
1. Target brand beliefs	-				
2. Multi-item personality traits	.55[a]	-			
Manipulated variables					
3. Primer-target congruity	.44[a]	.42[a]	-		
4. Primer-target comparison relevance	.21[b]	-	.57[b]	-	
Moderating variable					
5. Product category knowledge	-	.20[b]	-	-	-

NOTE: a = p < .01, b = p < .05, c = p < .10

Table 31: Test of assumptions of univariate homogeneity

Variables	LEVENE's - test of equality of error variances	
Dependent variables		
1. Target brand beliefs	F = 0.41	p = .748
2. Multi-item personality traits	F = 0.77	p = .520
Manipulated variables		
3. Primer-target congruity	F = 3.97	p = .010
4. Primer-target comparison relevance	F = 4.21	p = .007
Moderating variable		
5. Product category knowledge	F = 1.51	p = .188

Appendix V

CONTEXTUAL PRIMERS AND TARGET BRANDS

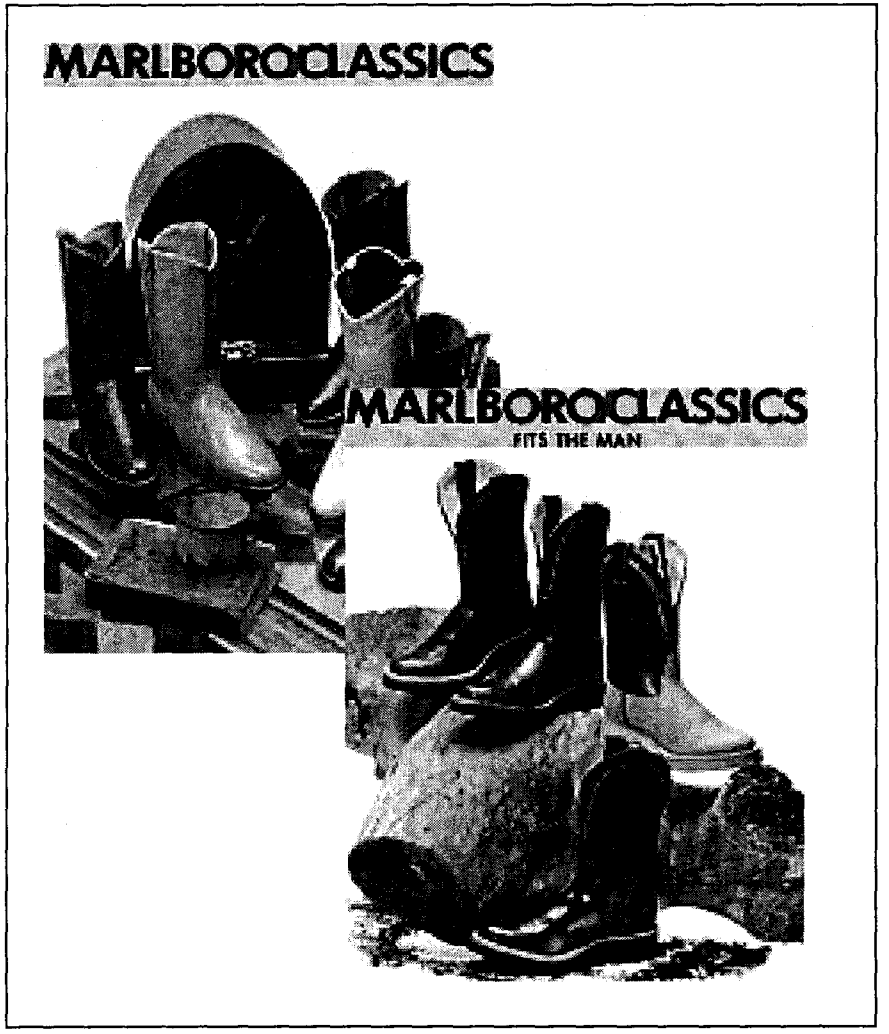
PILOT STUDY -

CONTEXTUAL PRIMERS AND TARGET BRANDS

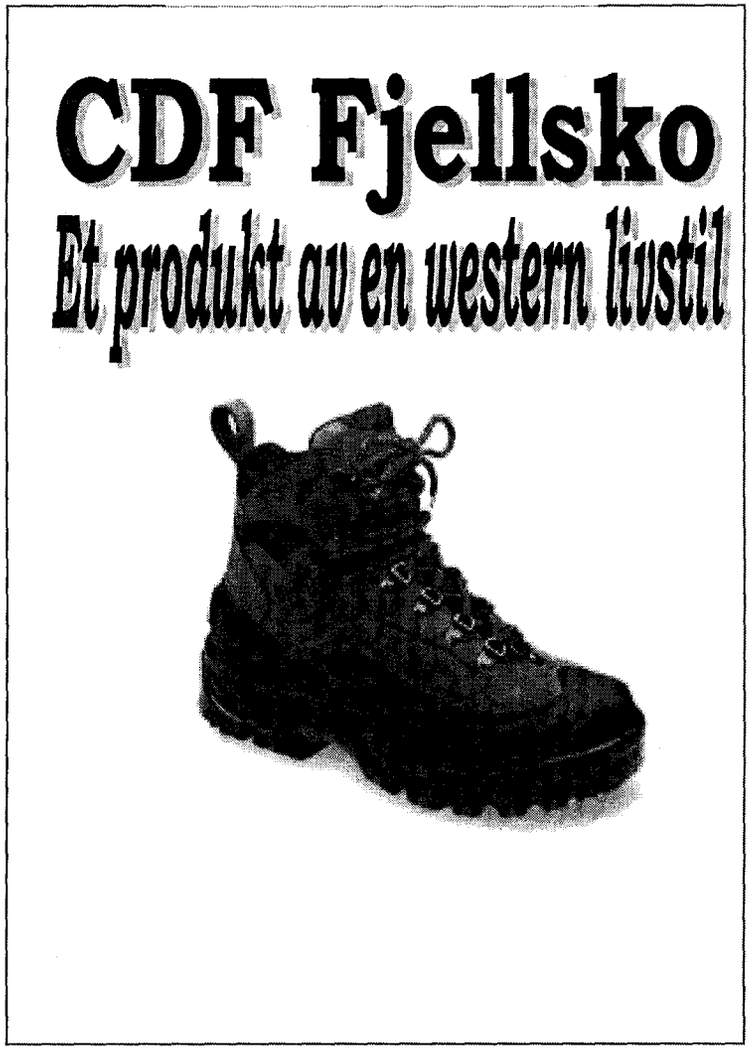
Country stereotype primer – "US western lifestyle"

Person primer

Product primer

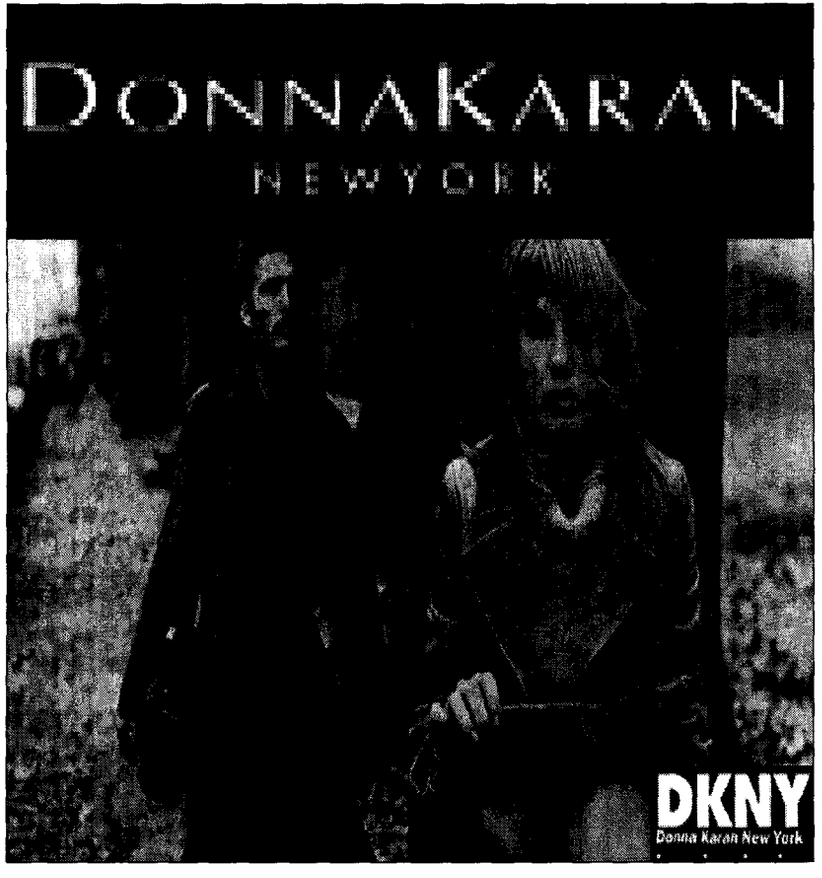


Target brands – "US western lifestyle"



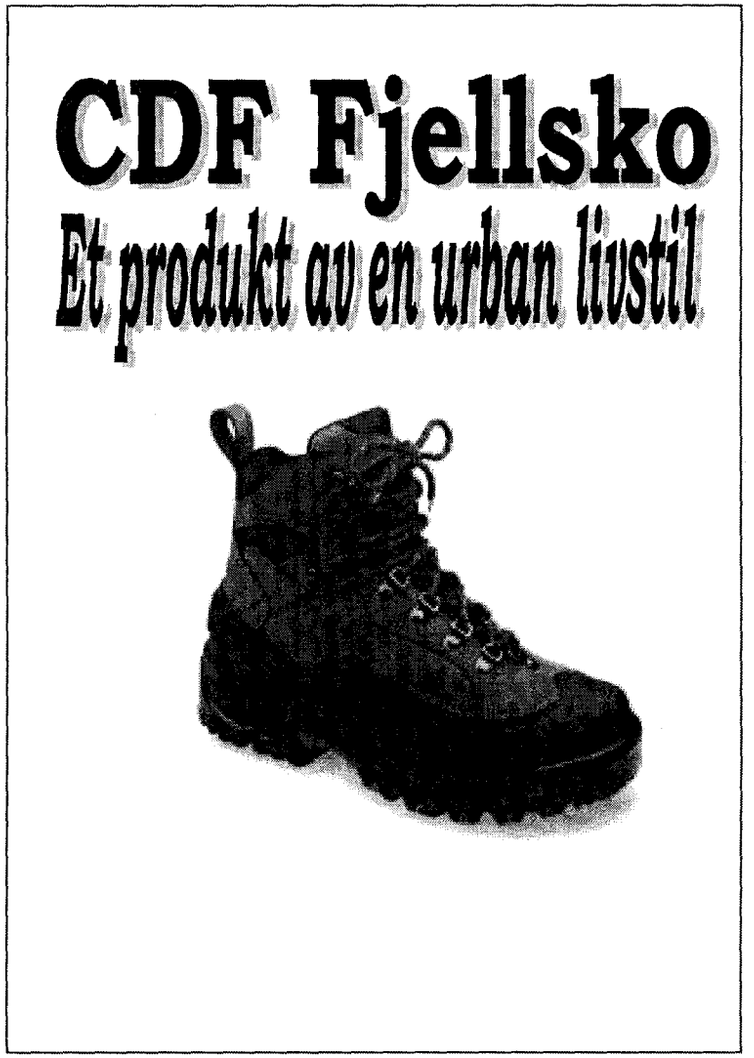
Country stereotype primer – "US urban lifestyle"

Person primer



Product primer

Target brands – "US urban lifestyle"



EXPERIMENT 1 AND EXPERIMENT 2 -

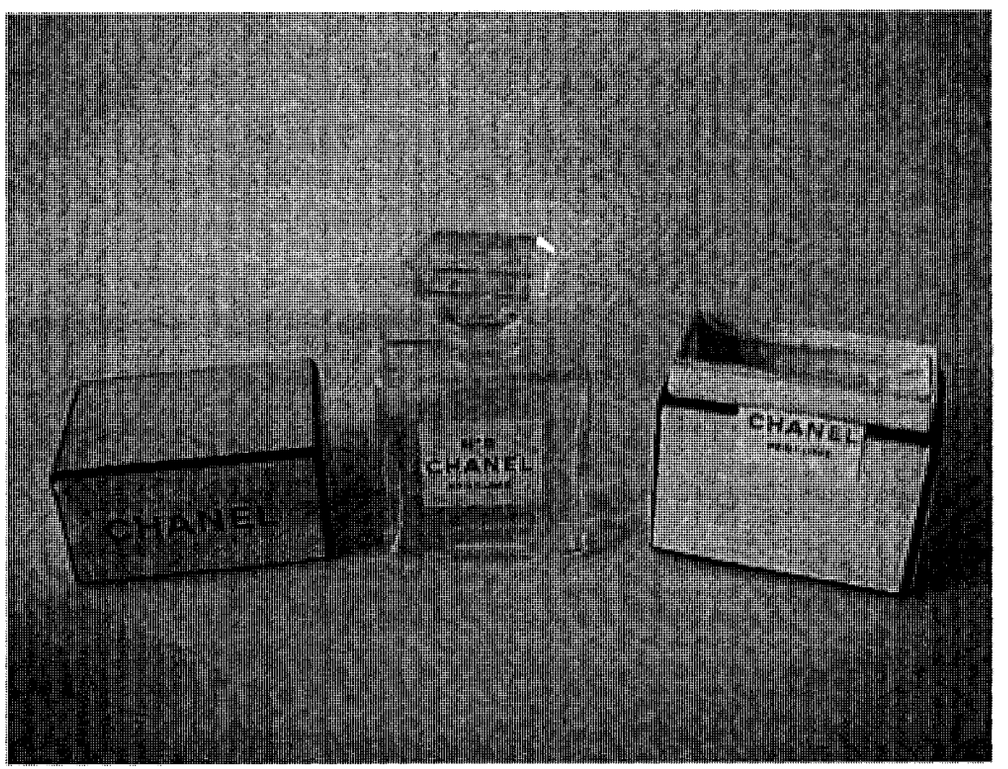
CONTEXTUAL PRIMERS AND TARGET BRANDS

Country stereotype primers - "French finesse"

Person primer

COCO CHANEL

Product primer



Target brands - "French finesse"