How Does Self-Referencing Affect Product Evaluations?
A Comparison of Three Models

By Heribert Gierl and Sandra Bombe

Self-referencing is the cognitive process through which certain pieces of information encourage individuals to generate self-related thoughts that direct their attention to themselves. In advertisements, peripheral ad cues and instructions to imagine or remember events may elicit self-related thoughts that affect product evaluations. In this paper, we consider three models of self-referencing. We show that instructions to imagine or remember a pleasant event cause favourable product evaluations both in the case of strong arguments and in the case of weak arguments. Instructions to imagine or remember an unpleasant event render evaluations more extreme. Peripheral ad cues that cause perceptions of cue/self-similarity improve product evaluations regardless of argument strength. Thus, we show that different types of stimuli that elicit self-related thoughts result in different responses to the advertised product.

1. Introduction

1.1. The Components of Advertisements

Advertisements that aim to influence consumer attitudes are composed of several elements. On the one hand, advertisements contain diagnostic information. The consumer may use these pieces of information to infer desirable product characteristics and benefits, such as quality and suitability for increasing social prestige. Benefit arguments and signals of quality are considered diagnostic information. Strong benefit arguments elicit thoughts suggesting that the product is superior to competitors’ products, whereas weak arguments elicit thoughts suggesting that the advertised product does not have superior benefits (Petty/Cacioppo 1986, p. 32; Petty/Cacioppo/Schumann 1983, p. 139). Alternatively, the consumer may rely on signals of quality, such as the brand name, a Consumer Reports rating, or warranties, to assess product favourability (Maheswaran/Mackie/Chaiken, 1992, p. 321; Miniard et al. 1991, p. 97). On the other hand, advertisements are composed of numerous pieces of non-diagnostic information. The consumer is aware that this information is not suitable for inferring product favourability because such information is not logically connected to the advertised product’s benefits (Nisbett/Zukier/Lemley 1981, p. 249). Studies on the persuasiveness of advertising have mainly investigated two types of non-diagnostic information. The first type consists of favourable peripheral advertising cues, such as liked music, liked celebrities, attractive models, and beautiful landscapes (Andrews/Shimp 1990, p. 196). The second type consists of favourable heuristic cues, such as scarcity signals or hints that the majority of consumers prefer the respective product (Maheswaran/Chaiken 1991, p. 13).

Researchers suggest that the favourability of peripheral ad cues and heuristic cues spills over onto product evaluations. We investigate another property of non-diagnostic information: pieces of information that elicit the mental process of self-referencing.

1.2. The Definition of Self-Referencing

Initially, research on self-referencing focused on the individual’s ability to remember pieces of information. In a typical study, Wells/Hoffman/Enzle (1984) asked one subsample of people to assess whether numerous attributes, such as proud or idealistic, “describe you;” the other subsample group was asked to determine whether these attributes “describe John Lennon.” The first group was able to recall more attributes. Symons/Johnson (1997) provided an overview of 127 experiments that investigated the effect of self-referencing tasks on recall values. However, past studies have also examined the effect of self-referencing on evaluations. Thus, our definition does not focus on a certain response variable. Instead, we highlight the common mental process that affects both recall values and evaluations and define the concept as follows: self-referencing is the cognitive process through
which certain pieces of information encourage consumers to generate self-related thoughts (Burnkrant/Unnava 1995, p. 17; Debevec/Iyer 1988, p. 74) that direct the individuals’ attention to themselves and create links between the stimulus information and self-related information or even distract the individuals’ attention from the stimulus information (Debevec/Spotts/Kernan 1987, p. 417).

To avoid confusion, we outline the differences between self-referencing and the concepts of self-verification and self-enhancement. The literature denotes the processes through which targeted consumers relate the benefit arguments to themselves as self-verification and self-enhancement. Past studies have extensively examined how advertisements emphasising benefits that conform to the consumer’s actual or ideal self-perceptions create higher product evaluations because possessing and consuming these products verify and enhance self-perceptions (e.g., Graeff 1996, p. 5; Leary 2007, p. 319; Levy 1959, p. 117; Sirgy 1980, p. 350; 1982, p. 288 f.). For instance, consumers who strongly desire the perfect figure will prefer a supplier of a home gym that promises its product will help to improve one’s figure or maintain a well-shaped body. Self-congruity theory posits that the fit between benefit arguments and actual/ideal self-perceptions affects product evaluations positively. In contrast, self-referencing arises if nondiagnostic information fits with self-perceptions. Fig. 1 illustrates the difference between the self-verification/enhancement processes and the self-referencing process.

1.3. Contribution to Research

Our review of prior research on the role of self-referencing in evaluations reveals that the studies are based on a common foundation. These studies hypothesise that more cognitive resources become available if an individual feels that he or she has been personally addressed by certain instructions and peripheral ad cues (Burnkrant/Unnava 1989, p. 629; Debevec/Iyer 1988, p. 76; Rogers/Kauper/Kirker 1977, p. 680). If more cognitive resources are available, more self-related thoughts are generated. There is a consensus in the literature on this part of the theory.

Most researchers argue that the surplus of cognitive resources is spent in favour of a more intense elaboration of the arguments (e.g., Burnkrant/Unnava 1989; 1995), which positively affects the evaluations. This premise is denoted in the literature as the elaboration-based explanation of the self-reference effect. Thus, prior research has mainly attempted to demonstrate that numerous versions of instructions and cues with the potential to elicit self-related thoughts affect evaluations positively.

Two aspects of these studies have given rise to new questions. First, empirical research often did not support the assumption that the investigated instructions and peripheral ad cues actually improve evaluations. Second, from a theoretical point of view, Baumgartner/Suñan/Bettman (1992) and Suñan/Bettman/Baumgartner (1993) hypothesised that self-referencing has a different effect. In brief, they argued that self-related thoughts distract the consumer’s attention from stimulus information (i.e., the ad); instead, positive emotions are evoked and transferred to the product regardless of the argument strength. This view is denoted as the affective-based explanation of the self-reference effect. We found two statements in the literature indicating a conflict between these perspectives (Escalas 2007, p. 421; Burnkrant/Unnava/Jewell 2001, p. 89). However, neither Escalas nor Burnkrant/Unnava/Jewell ultimately clarified the question of which explanation is correct or identified the precise conditions under which the alternative explanations are valid.

In this study, we use these aspects as a starting point to elaborate on the theories underlying the affective-based explanation and the elaboration-based explanation. We develop two models and denote them as the affect-transfer model and the evaluation-amplification model. Both streams of research (i.e., the researchers who rely on the affective-based explanation and those who rely on the elaboration-based explanation) use the same technique to induce the self-referencing process: instructions to imagine or remember one’s own experiences. Thus, we focus on this type of instruction and hypothesise that affect transfer occurs if consumers imagine or remember a pleasant event that is associated with positive emotions. In contrast, we expect more extreme evaluations if consumers imagine or remember an unpleasant event associated with personal problems. Admittedly, the basic principles of these theories have already been discussed in the literature. However, empirical evidence on this matter remains scarce.

In addition to instructions to imagine or remember, several other pieces of nondiagnostic information that may activate a self-referencing process are discussed in the literature. Other examples of self-referencing techniques include portrayals of other people, symbols with cultural meaning, cues that induce sensations of personal nostalgia (e.g., Marchegiani/Phau 2010, p. 244; Muehling/Pascal 2011, p. 110; Muehling/Sprott 2004, p. 27), sim-
ple instructions to rely on one’s own thoughts that are provided prior to one’s exposure to a target stimulus (Turco 1996, p. 264), statements such as “designed with you in mind” (Escalas 2007), pictures of product-usage situations from the consumer’s perspective (e.g., Meyers-Levy/Peracchio 1996), and statements with special wordings (e.g., Debevec/Romeo 1992; Bosmans et al. 2001). We assume that the effects of most of these techniques cannot be explained by the affect-transfer model or by the evaluation-amplification model. We cannot consider all of these techniques in this study. However, a trait shared by some of these techniques is their suitability for eliciting perceptions of cue/self-similarity. Thus, we also investigate the effectiveness of cues that elicit perceptions of cue/self-similarity.

In sum, our contribution to the literature is twofold. First, we test whether the pleasant/unpleasant dichotomy can be used to predict the outcome of instructions to imagine or to remember. Second, we consider cues that elicit perceptions of cue/self-similarity, develop a third model called the evaluation-enhancement model, and test this model.

2. The Affect-Transfer Model

For clarification, we present in Fig. 2 examples of real-world ads that contain instructions to imagine or remember a pleasant event.

Consumers who are asked by the ad’s verbal instruction to envision themselves in a pleasant situation may feel personally addressed by the ad and therefore make additional cognitive resources available (e.g., Babin/Burns 1997; Bone/Ellen 1990; 1992, p. 96; Dahl/Hoeffler 2004; Dimofte/Yalch 2010; Gregory/Culindin/Carpenter 1982; Krishnamurthy/Sujan 1999; Morrison/Shaffer 2003). This surplus of resources can be used to generate self-related thoughts. In this condition, consumers may envision themselves in the situation described or depicted in the ad, which enables them to achieve favourable outcomes (Chang 2005, p. 888; Debevec/Iyer 1988, p. 75; Martin/Lee/Yang 2004, p. 28).

Alternatively, consumers may be asked to remember their own pleasant experiences (Baumgartner/Sujan/Bettman 1992; Burnkrant/Unnava/Jewell 2001, p. 91; Price/Axson/Coupey 1997). Again, additional cognitive resources that can be used to retrieve self-related information stored in the memory are expected to become available (Anderson/Reder 1979, p. 390; Sujan/Bettman/Baumgartner 1993, p. 426).

Baumgartner/Sujan/Bettman (1992, p. 57) and Escalas (2004, p. 40) suggest that self-related thoughts (things imagined or autobiographical knowledge) may be the immediate source of emotions. The literature suggests that positive emotions are likely to be elicited if self-related thoughts are storylike (Escalas 2004; 2007) and focused on a pleasant event. Storylike thoughts require a higher portion of cognitive resources than non-storylike thoughts. Self-related thoughts are storylike if the following criteria are met. The person must be involved in the self-generated story as an actor. The thoughts must be organised chronologically (i.e., the self-generated story consists of an initial event, intermediate events, and a final event). A type of causality must exist (i.e., the thoughts concern a goal, actions, and an outcome). Moreover, the thoughts must focus on a concrete rather than an abstract event (e.g., “my last Christmas” or “my next Christmas” instead of “Christmas”). Baumgartner/Sujan/Bettman (1992, p. 57) and Sujan/Bettman/Baumgartner (1993, p. 423) posit that concrete storylike thoughts include several details regarding time and context. This theory is also denoted as the narrative processing of information and is explained in greater detail by Green/Brock (2000) and Green/Brock/Kaufmann (2004).

The phenomenon in which emotions are used for product evaluations can be explained by a process of misattribution. Some researchers presume that people consult their affective state for evaluations (i.e., they use a “how do I feel about it” heuristic) (Schwarz 1990, p. 529; Schwarz/Clore 1983, p. 520; Schwarz et al. 1991, p. 201). If a stimulus (e.g., a product) is present in a state of positive emotions elicited by self-related thoughts, consumers may mistakenly attribute the cause of these emotions to the attributes and benefits of the stimulus rather than to

<table>
<thead>
<tr>
<th>Ad for a diamond retailer</th>
<th>Ad for a hair conditioner</th>
<th>Ad for a toy retailer</th>
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<tbody>
<tr>
<td><img src="image1.png" alt="Ad for a diamond retailer" /></td>
<td><img src="image2.png" alt="Ad for a hair conditioner" /></td>
<td><img src="image3.png" alt="Ad for a toy retailer" /></td>
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Figure 2: Examples of Ads with Instructions to Imagine or Remember a Pleasant Event
the presence of self-related thoughts. Sujan/Bettman/Baumgartner (1993, p. 423) refer to two arguments to explain why a transfer of emotions can happen. First, an individual’s perception of his or her personal characteristics is rather complex; consequently, self-related thoughts require the bulk of cognitive resources, and arguments may even be neglected. Second, consumers might value self-related thoughts more than argument-based thoughts and thus ignore arguments entirely. When are consumers likely to rely on their emotions to evaluate an advertised product? First, the literature argues that individuals who are highly engrossed in self-related thoughts ignore arguments. Second, the literature suggests that only positive emotions will be transferred to the advertised product (MacInnis/Price 1987); negative emotions induced by self-referencing will not substitute for argument processing. The findings of Burnkrant/Unnava/Jewell (2001, p. 95) provided support for the latter assumption. This asymmetry may be explained by a human tendency to focus on internal stimuli (e.g., imagination and autobiographic memory) in the case of positive emotions. In contrast, people tend to seek external stimuli deliberately in the case of negative emotions to distract themselves from such emotions. Third, Sujan/Bettman/Baumgartner (1993, p. 426) suggest that a perceived link must exist between the advertised product and the generated storylike self-related thoughts.

In sum, instructions to imagine or remember a pleasant event that induces storylike self-related thoughts linked to the advertised product are expected to affect product evaluations in accordance with the affect-transfer model (Bosmans et al. 2001, p. 115; Dimofte/Yalch 2010, p. 348; Martin/Neer/Pervan 2007, p. 201). The model depicted in Fig. 3 predicts improved evaluations in weak argument conditions but cannot be used to predict whether self-referencing improves evaluations in strong argument conditions as well.

Sujan/Bettman/Baumgartner (1993, p. 429) tested the interaction effect of the presence of an instruction to remember pleasant events and argument strength. Their results were in line with the affect-transfer model. We contribute to the research on self-referencing by replicating these authors’ experiment. However, there is a lack of research on the interaction effect of argument strength and instructions to imagine pleasant events. In related research, Escalas (2004; 2007) conducted a series of experiments. For instance, Escalas (2007, p. 425) tested whether argument strength and the instruction to be sceptical of the ad moderate the effectiveness of an instruction to imagine a pleasant event; she did not compare the effect of the presence of the instruction with the effect of its absence. Praxmarer (2011) tested the interaction effect of the instruction to imagine using the advertised product and argument strength. This type of instruction does not necessarily aim to generate favourable imaginations. We intend to add additional findings to the research on self-referencing by considering the presence and absence of instructions to imagine pleasant events. Accordingly, we test the following hypothesis:

**H1:** Regardless of argument strength, instructions to imagine or to remember a pleasant event cause positive product evaluations.

### 3. The Evaluation-Amplification Model

To introduce the second model, we show some examples of real-world ads that contain instructions to imagine or remember an unpleasant event in Fig. 4. The German ad shown on the left side of this figure asks citizens to volunteer at fire departments. The instruction used can be
translated as follows: “Imagine that you press the emergency button, and nobody comes.”

Consumers who are asked to envision or remember an unpleasant event could also feel personally addressed and make additional cognitive resources available (e.g., Burnkrant/Unnava 1989, 1995). These resources are used to develop self-related imaginations or to retrieve autobiographical memories. Through this process, the consumer generates additional self-related explanations for why problems arise if he or she does not use the appropriate products (Janis/Feshbach 1953). Essentially, there are two sources affecting the consumer’s perception of problem relevance. First, the information contained in the ad itself affects these perceptions. Second, self-related thoughts may influence the consumer’s perceptions of personal relevance as well. Consequently, the consumer perceives the personal relevance of the problems to be higher overall because of the presence of self-related thoughts (Keller/Block 1996, p. 450).

We assume that the motivation to search for good solutions to problems is more pronounced if consumers more strongly perceive the personal relevance of such problems. If perceptions of personal relevance are strong, consumers are likely to elaborate on the arguments significantly rather than ignore them because the advertised product is likely to help to avoid or attenuate problems (Hovland/Janis/Kelly 1953; Janis/Terwillinger 1962, p. 409; Ruiter et al. 2001, p. 309). In this way, consumers can balance self-related, problem-oriented thoughts with argument-based, solution-oriented thoughts. Strong arguments indicate that the problems can be solved by the advertised product and are thus perceived to be even stronger. In the weak argument condition, increased perceptions of personal relevance are apparently not balanced with the arguments, and weak arguments are perceived to be even weaker. In sum, the perceptions of argument strength will become more extreme (Burnkrant/Unnava 1989, p. 630) tested the effectiveness of differently worded instructions to remember unpleasant events; however, the instruction-absent condition was not considered. Thus, we intend to contribute to the research on self-referencing by testing the following hypothesis:

**H2:** Instructions to imagine or remember an unpleasant event make product evaluations more extreme.

### 4. The Evaluation-Enhancement Model

Portraits of people who share commonalities with the targeted recipients are frequently shown in advertisements. Consumers can easily recognise these persons’ overt characteristics, such as their gender, age, weight, clothes, and ethnic group. Identification theory assumes that consumers automatically assess their level of similarity to other people (Kelman 1961, p. 65). Several authors argue that people also use information about other people’s overt characteristics to make inferences regarding lifestyles and nonobservable characteristics (Appiah 2001a, p. 10; 2001b, p. 32; 2007, p. 15 f.; Feick/Higie 1992, p. 11). These inferences result in an overall perception of similarity between the observer and the person depicted in the ad (Lee/Fernandez/Martin 2002, p. 369). Spontaneous sentiments such as “The depicted person looks like me” may be evoked (Forehand/Desphande 2001, p. 339). Debevec/Romeo (1992, p. 86) portrayals of other people that aim to induce perceptions of similarity as slice-of-life portrayals. In addition to portrayals, nonpersonal cues may elicit perceptions of cue/self-similarity as well. For instance, if a certain landscape familiar to the consumer is depicted in an advertisement, spontaneous sentiments such as “This landscape looks like the region where I live” may result (e.g., a feeling of familiarity). Descriptions of situations that are well known to the consumer may evoke spontaneous sentiments such as “This just happened to me” (Aaker/Brumbaugh/Grier 2000, p. 128; Debevec/Iyer 1988, p. 74). Even colours may induce perceptions of cue/self-similarity if consumers associate the colours with self-related meanings. To illustrate real-world ads that might evoke perceptions of cue/self-similarity, we present three ad types in Fig. 6.
Because advertisements link cues and the advertised product, consumers may be motivated to use cognitive resources to assess product/self-relatedness. Imagine a beer ad that contains a picture of a landscape. A consumer who lives in the area where the photo was taken may experience perceptions of cue/self-similarity between the peripheral ad cue (i.e., the place depicted) and his or her own personal characteristics (i.e., the place where he or she lives). If cognitive resources are increased because of the experienced commonality, the consumer may imagine the consumers who typically drink this beer. In this way, an overall “for people like me” belief or even an overall “exactly for me” belief is likely to be elicited (Chang 2008, p. 19; Debevec/Romero 1992, p. 87).

Self-enhancement theory hypothesises that people have a general need to view themselves positively (Allport 1937, p. 170; Kwang/Swann 2010, p. 263). Except in cases of depression, individuals tend to have positive views of their personal characteristics (Alloy et al. 1997, p. 541; Debevec/Spotts/Kern 1987, p. 417; Fiske/Taylor 1991, p. 186; Rogers 1981, p. 206). Leary (2007, p. 321) argues that people’s need for positive self-evaluation spills over into their evaluations of the objects, places, and people with which they are associated. This effect is also known as “ownness bias” (Perloff/Brock 1980, p. 82; Shavitt/Brock 1984, p. 154) and “mere belongingness to self” bias (Nuttin 1985, p. 353). For instance, people tend to evaluate the city in which they live more highly than other cities and to overvalue objects with which they feel associated. Jones et al. (2002, p. 170) and Pelham/Mirenberg/Jones (2002, p. 470) state that this process represents a form of unconscious self-enhancement. If a consumer generates “for people like me” or “exactly for me” beliefs, the consumer would be expected to transfer his or her own positive attributes onto the product, which would improve his or her own evaluations of that product (Perkins/Forehand 2012). In sum, perceptions of cue/self-similarity are likely to improve evaluations. The resulting evaluation-enhancement model is depicted in Fig. 7.

There is extensive research on the effects of similarities between the cues contained in ads and the recipients of these ads on product evaluations. We found three streams of research that differ regarding the way of how similarity is manipulated. First, similarity is varied by depicting other persons in the ads that share or do not share common characteristics (e.g., ethnicity, clothes, gender, weight, age, and language) with the targeted consumer. Within this stream of research, we identified two experiments that manipulated cue/self-similarity and argument strength. Armstrong (2000, p. 212) reported findings that are in line with the evaluation-enhancement model. Whittler/Spira (2002) found mixed results. Second, similarity is manipulated by including the personal attributes of the targeted recipient in the ad. Howard/Kerin (2011, p. 68) used the respondent’s name as the brand name for the advertised product, and Ahn/Bailenson (2011, p. 97) depicted the respondent’s portrait in the ad. Howard/Kerin (2011) also varied argument strength and reported mixed results. Third, similarity is manipulated by using or not using culture-specific symbols, colours, and monuments (e.g., Appiah/Liu 2009; Luna/Peracchio/De Juan 2003). Within this stream of research, we did not find any authors who manipulated the argument strength as well. Overall, we found only one study that is in line with the evaluation-enhancement model (Armstrong 2000).
and two studies that did not report any shifts in evaluations (Howard/Kerin 2011; Whittler/Spira 2002). Because the results of previous research are inconsistent, we contribute to the research on self-referencing by testing the following hypothesis:

H3: Regarding of argument strength, peripheral ad cues that induce perceptions of cue/self-similarity improve product evaluations.

5. Empirical Studies

We conducted an experiment to test the affect-transfer model and the evaluation-amplification model. Two additional experiments were conducted to test the evaluation-enhancement model.

5.1. The Experiment Testing the Affect-Transfer Model and the Evaluation-Amplification Model

The Experimental Design: In the first experiment, running shoes and an offer for resort vacations served as the test objects. For the first test object (running shoes), we conducted an experiment based on a 2 (argument strength: high vs. low) × 3 (instruction to imagine a pleasant event, instruction to imagine an unpleasant event, and the absence of instructions) factorial between-subjects design. For the second test object (offer of resort vacations), the experimental design was a 2 (argument strength: high vs. low) × 3 (instruction to remember a pleasant event, instruction to remember an unpleasant event, and the absence of instructions) factorial between-subjects design. Therefore, our experiments add to the study by Burnkrant/Unnava/Jewell (2001, p. 95) in that we compare the effectiveness of the instruction-present condition with that of the instruction-absent condition. The data were collected in Germany.

The Test Objects: We used brands from categories that could be associated with pleasant and unpleasant events. Based on the experiments of Escalas (2004; 2007), we adopted the category of running shoes and developed ad versions for Brooks, which is a relatively unknown brand in Germany. Additionally, we used resort vacations as a test object because consumers who book package holidays can easily remember pleasant and unpleasant events. We created ad versions for the resort company Club Med.

The Instructions: The instruction requesting consumers to imagine a pleasant event while evaluating the running shoes was adopted from Escalas (2004, p. 48; 2007, p. 424): “Imagine yourself running. Your feet feel remarkably light. You look down and see a pair of Brooks running shoes. Imagine how easy running with Brooks will be.” The version that asked consumers to imagine an unpleasant event was formulated analogously: “Imagine yourself running. Your feet hurt because you have the wrong pair of shoes. An optimal fit prevents foot pain. With Brooks running shoes, your feet feel remarkably light. Imagine how easy running with Brooks will be.” Similarly, we created instructions for ads promoting resort vacations. In this case, the instructions aimed to elicit autobiographical memories. The version asking consumers to remember a pleasant event stated the following: “Remember your most beautiful holiday: a fantastic beach, a wonderful hotel, perfect service, delicious food.” The version asking consumers to remember an unpleasant event stated: “Remember your most horrible holiday: an overcrowded beach, a dirty hotel, poor service, simply a nightmare. These things will certainly not happen with Club Med.”

The Argument Strength: In a pre-test, we asked consumers belonging to the targeted segments (i.e., people who use running shoes and consumers who book package holidays) to rate whether certain features of running shoes or package holidays, respectively, “indicate a superior product/offer in its category” on a seven-point scale. In total, 40 people participated in this pre-test. Of the participants, 20 rated arguments for running shoes and the other 20 rated arguments for package holidays. Based on these findings, we included five features that received low ratings to create the weak-argument versions of the ads and included five features that received high ratings to develop the strong-argument versions.

The Test Stimuli: In Fig. 8, we present the weak-argument versions of the advertisements for running shoes.

<table>
<thead>
<tr>
<th>Absence of instructions</th>
<th>Instruction to imagine a pleasant event</th>
<th>Instruction to imagine an unpleasant event</th>
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Figure 8: The Weak-Argument Ad Versions Used in the Experiment to Test the Affect-Transfer Model and the Evaluation-Amplification Model
The strong-argument versions differ only with regard to the arguments included. The ad versions for the holiday package were designed similarly.

The Sample and Procedure: We conducted an online survey and distributed the link to the questionnaire via Facebook. We used two versions of the questionnaire because we considered two test objects. At the beginning of each questionnaire, we informed the participants that we were interested in consumers who at least occasionally use running shoes or purchase package holidays. In total, 360 consumers participated. Because 47 questionnaires were not fully completed, the final sample included 313 respondents (54 % female, M_age = 24.92 years, 32 % students). Because we had twelve experimental groups, the average cell size was approximately 26. In addition to providing demographic data, the respondents reported category involvement. We used these data to analyse whether the experimental conditions were homogeneous (we found no significant differences). Then the respondents watched an ad version for as long as they wished. After viewing the ad, the respondents evaluated the product, agreed or disagreed with statements that aimed to measure self-referencing, and finally reported their emotional states.

The Measures: The items we used to measure product evaluations were “attractive,” “interesting,” “appealing,” and “positive” (α = .925). To assess the emotional state, we selected four items (cheerful, happy, excited, and delighted; α = .966) from PANAS-X (Watson/Clark 1994, p. 11). In the case of the running shoes, we measured the intensity of the participants’ self-related thoughts by asking them to agree or disagree with the following statements: “I can easily picture myself using these running shoes” and “I can easily imagine situations where I could use these running shoes.” Similar statements are frequently used in studies to measure self-referencing (e.g., Burnkrant/Unnava 1995; Debevec/Romeo 1992; Escalas 2004; 2007; Micu/Coulter 2010). In the case of the vacation resort, we aimed to vary the intensity with which autobiographical knowledge was retrieved. We asked the respondents to agree or disagree with the following statements: “The ad made me think about my personal experiences” and “While viewing this ad, I reminisced about my own experiences.” Similar statements were used by Burnkrant/Unnava (1995), Burnkrant/Unnava/Jewell (2001), Lee/Fernandez/Martin (2002), and Martin/Lee/Young (2004). All scales were seven-point scales.

The Manipulation Checks: We analysed whether the manipulations of self-referencing, emotional state, and argument strength were successful. First, we compared the self-referencing caused by the ad versions containing instructions to imagine or remember with the self-referencing induced by the instruction-absent versions. For running shoes, self-referencing was higher when the instructions were present (self-referencing: M_present = 4.78, M_absent = 3.78, F_1,152 = 9.028, p < .01). The same effect was found for resort vacations (self-referencing: M_present = 4.86, M_absent = 3.72, F_1,157 = 16.124, p < .001). This finding indicates that the manipulation of self-referencing was successful. Second, we analysed whether the instructions to imagine or remember a pleasant event resulted in a more positive emotional state than the instruction-absent conditions and whether instructions to imagine or remember an unpleasant event caused a less positive emotional state. The findings indicate that this manipulation was successful as well (emotional state: M_pleasant = 4.54, M_instruction_absent = 3.79, M_unpleasant = 2.91, F_2,310 = 26.801, p < .001). Third, we investigated whether argument strength was adequately manipulated, and we compared the product evaluations resulting in the strong-argument conditions with those resulting in the weak-argument conditions (product evaluations: M_strong = 5.50, M_weak = 3.91, F_1,311 = 100.332, p < .001). The results showed that the argument strength was manipulated as intended.

The Results: In Fig. 9, we report the effects of the manipulations on product evaluations.

In H1, we postulated that evaluations are positive and do not depend on argument strength if instructions to imag-
ine or remember a pleasant event are present. The data support this assumption (running shoes: $M_{\text{strong, pleasant}} = 4.73, M_{\text{weak, pleasant}} = 4.70, F_{1, 48} = .006, p > .9$; resort vacations: $M_{\text{strong, pleasant}} = 5.70, M_{\text{weak, pleasant}} = 5.60, F_{1, 58} = .082, p > .7$). In H2, we expected the evaluations to become more extreme if instructions to imagine or remember an unpleasant event were present. First, we tested whether evaluations are more favourable in the strong-argument condition and found evidence for this assumption (running shoes: $M_{\text{strong, absent}} = 5.17, M_{\text{weak, present}} = 5.73, F_{1, 53} = 4.024, p < .05$; resort vacations: $M_{\text{strong, absent}} = 5.52, M_{\text{strong, present}} = 6.17, F_{1, 54} = 3.702, p = .06$). Second, we analysed whether evaluations deteriorate in the weak-argument condition, again, the data support the hypothesis (running shoes: $M_{\text{weak, absent}} = 3.08, M_{\text{weak, present}} = 2.30, F_{1, 47} = 6.494, p < .05$; resort vacations: $M_{\text{weak, absent}} = 3.92, M_{\text{weak, present}} = 3.28, F_{1, 41} = 4.656, p < .05$).

5.2. The Experiments Testing the Evaluation-Enhancement Model

To test the evaluation-enhancement model, we conducted two experiments that differ in terms of the manipulation of cue/self-similarity. In the first experiment, we included “The way I live” images in print advertisements to induce a high self-referencing condition. In the second experiment, we inserted famous national buildings into print ads and websites to induce a strong self-referencing condition.

5.2.1. The Effectiveness of “The Way I Live” Images

The Experimental Design: The experiment is based on a 2 (argument strength: high vs. low) × 2 (“The way I live” images: present vs. absent) × 2 (brands) factorial between-subjects design. The latter factor was included to prove the stability of the results. This experiment adds to the study of Debevec/Romeo (1992) by accounting for the argument strength.

The Test Objects: We used two unknown brands, Decléor cosmetics and Rolben tea.

“The Way I Live” Images: For the cosmetic product, we targeted young females who live in Munich and who are interested in exercise. We inserted an image of a young woman applying moisturiser into the ads. The ad versions that aimed at inducing high perceptions of cue/self-similarity also contained a picture of the woman exercising and a picture of a famous building located in Munich. In this way, “The way I live” images that could induce “for me” beliefs were present. For the tea, we targeted young professional females who work in management jobs and raise children. The ad versions depicted a young woman drinking tea. The ad versions that aimed to induce high perceptions of cue/self-similarity contained pictures of working life and family life. Given these “The way I live” images, the targeted consumers may feel addressed by the ads and consequently experience “for me” beliefs. A sample of females rated the images as neither strongly positive nor strongly negative.

The Argument Strength: The procedure used to select strong and weak arguments was adopted from the experiment described in the previous section. The samples used in the pre-test belonged to the targeted segments.

The Test Stimuli: For both brands, we created four ad versions. The versions differ in argument strength and the peripheral cues included in the ad to induce the self-referencing process. For instance, in the case of the young women who are interested in exercise and live in Munich, we included pictures showing “Munich,” “body exercise,” “bathing,” and “applying moisturiser.” The weak-argument versions of the ads are depicted in Fig. 10.

The Sample, Procedure, and Measures: In the case of the cosmetics, we collected the data from gyms located in Munich ($N = 160, M_{\text{age}} = 23.46$ years). In the case of the tea, we collected the data from kindergartens after select-
ing young women who identified themselves as belonging to the targeted segment (N = 160, M_{age} = 32.48 years). The procedure used was similar to that used in the first experiment. However, in the second experiment, we did not collect the data via an online survey. Because we used other means to induce self-related thoughts, self-referencing was assessed by asking the respondents to agree or disagree with the following statements on seven-point scales: “I strongly feel the advertisement was intended for people like me” and “I strongly believe I was in the target market that the company created the advertisement for.” These items are widely used in the research on self-referencing (e.g., Aaker/Brumbaugh/Grier 2011; Burnkrant/Unnava 1989; 1995; Forehand/Deshandé 2001; Martin/Lee/Yang 2004; Micu/Coulter 2010).

The Manipulation Checks: We analysed whether the manipulations of self-referencing and argument strength were successful. First, we compared the ad versions containing “The way I live” images with the ad versions lacking these images and calculated the respondents’ agreement with the statements that aimed at measuring self-referencing. The participants who were exposed to “The way I live” images reported higher agreement with these statements (self-referencing: M_{images present} = 5.23, M_{images absent} = 2.90, F_{1, 316} = 130.570, p < .001). This finding indicates that self-referencing was manipulated successfully. Moreover, we investigated whether the strong-argument ad versions led to higher product evaluations than the weak-argument ad versions. Again, the findings show that this factor varied in accordance with our intentions (product evaluations: M_{strong} = 5.17, M_{weak} = 3.37, F_{1, 316} = 213.599, p < .001).

The Results: Fig. 11 shows how the product evaluations depend on the experimental factors. Because the findings were stable across the products, we collapsed the data across the products and tested H3. In the strong-argument condition, inserting “The way I live” images led to more favourable product evaluations (M_{images present} = 5.49, M_{images absent} = 4.69, F_{1, 156} = 22.738, p < .001). The same effect was found in the weak-argument condition (M_{images present} = 3.69, M_{images absent} = 3.03, F_{1, 156} = 16.526, p < .001). Moreover, a two-way ANOVA showed that there was no interaction effect of argument strength and the presence of “The way I live” images on product evaluations (F_{1, 316} = .406, p = .524).

In the next experiment, we analyse whether evaluations are improved if we use a cue that is expected to evoke perceptions of cue/self-similarity to a lesser extent than do “The way I live” images.

5.2.2. The Effectiveness of Including Famous National Buildings

The Design of the Experiment: The experimental design was a 2 (argument strength: high vs. low) × 6 (building: famous national building vs. unknown foreign building) × 6 (brands) factorial between-subjects design. The cue/self-similarity was varied by depicting either a famous national or an unknown foreign building in the ads. We considered several brands as test objects to prove whether the findings were stable across the brands. The data were collected among students from Germany. At the end of this section, we report findings from a replication of this experiment conducted in three countries (Germany, France, and the U.K.).

The Test Objects: Using images of buildings associated with the country in which an advertisement’s recipient lives or using images of buildings assumed to be located in foreign countries in ads may have multiple effects. We intend to focus on the effect of self-referencing. An image of a known national building fits a domestic brand and does not fit a foreign brand, whereas an image of a foreign building fits a foreign brand and does not fit a domestic brand. Moreover, an image of a building located in a foreign country conforms to brands that are positioned as international brands; in this way, a further effect could be evoked if the building (national vs. foreign) and the brand’s positioning (domestic vs. international) are congruent or incongruent. To avoid confusion with these fit concepts, we focused on brands whose countries
of origin are widely unknown among consumers. Moreover, the brands should not be interpreted as international brands (i.e., as brands whose benefit lies in their availability throughout the (Western) world). We asked 32 students from a German university to provide information about the countries of origin of numerous brands and to assess the brands’ internationality by adopting the scales suggested by Steenkamp/Batra/Alden (2003, p. 64). From this list, we selected six brands whose countries of origin were rather unclear from the consumers’ point of view and whose internationality ratings were low. Knowledge of the brands’ countries of origin and the ratings of brand internationality are shown in Tab. 1.

The Buildings: Another pre-test (N = 32 students) was conducted to identify buildings that are either highly famous in Germany or unknown and perceived to be located in a foreign country but do not differ with regard to the respondents’ preferences. Each of the participants identified the Brandenburg Gate of Berlin as a famous German monument. Additionally, the famous national building and the unknown foreign building that was alternatively included in the ads had to be equally attractive to prevent confusion regarding the respondents’ preferences for the monuments. We asked the participants to rate the Brandenburg Gate and images of four unknown foreign buildings on seven-point scales (“attractive,” “appealing,” and “interesting”). We selected an unknown foreign building that was liked to the same extent as the Brandenburg Gate (monument liking: $M_{\text{Brandenburg Gate}} = 4.38$, $M_{\text{foreign}} = 4.25$, $F_{1; 30} = .038, p > .9$).

The Argument Strength: We adopted the procedure used in the experiments explained above.

The Test Stimuli: In Fig. 12, we show the weak-argument versions of the ads for two brands. These versions also illustrate how we construed a link between the image of the building and the advertised product. For instance, the image of the building served as a screensaver in the ads for the computer. The suitcase was depicted in front of the buildings. Therefore, the consumer should not be confused and prompted to scrutinise the reason for showing the buildings.

The Procedure, Measures, and Sample: We programmed an online survey and targeted 560 students (51 % female, $M_{\text{age}} = 24.58$ years) from different universities located in Germany. Because we had four experimental conditions and six products, the cell size was approximately 23. The procedure and the measures were adopted from the experiment in which the effectiveness of “The way I live” images had been tested. The questionnaires also included 18 statements to assess numerous dimensions of ethnocentrism. The items were adopted from Shimp/Sharma (1987), Cleveland/Laroche/Papadopoulos (2009), Xu/Shim/Lotz (2004), and related studies.

The Manipulation Checks: We started our data analyses by conducting a manipulation check of the buildings’ suitability for inducing the self-referencing process. In

![Figure 12: The Weak-Argument Ad Versions Used in the Second Experiment to Test the Evaluation-Enhancement Model](image-url)

Table 1: Knowledge of the Brand’s Country of Origin and Ratings of Brand Internationality

<table>
<thead>
<tr>
<th>Brand</th>
<th>Certainty about the country of origin</th>
<th>Speculation about the country of origin</th>
<th>“I have no idea”</th>
<th>Brand internationality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colgate tooth paste</td>
<td>D (1/32)</td>
<td>-</td>
<td>31/32</td>
<td>3.75 (1.34)</td>
</tr>
<tr>
<td>Medion computer</td>
<td>D (1/32)</td>
<td>D (1/32), F (1/32), K (1/32)</td>
<td>28/32</td>
<td>3.00 (1.63)</td>
</tr>
<tr>
<td>Theramed tooth paste</td>
<td>-</td>
<td>D (2/32)</td>
<td>30/32</td>
<td>2.19 (1.64)</td>
</tr>
<tr>
<td>Titan suitcase</td>
<td>-</td>
<td>-</td>
<td>32/32</td>
<td>1.56 (.73)</td>
</tr>
<tr>
<td>Trekstor MP3 player</td>
<td>-</td>
<td>-</td>
<td>32/32</td>
<td>1.56 (1.10)</td>
</tr>
<tr>
<td>Volvic mineral water</td>
<td>F (1/32)</td>
<td>F (3/32)</td>
<td>28/32</td>
<td>3.75 (1.34)</td>
</tr>
</tbody>
</table>

Notes: D = Germany, F = France, I = Italy, K = South Korea.

Scales to assess brand internationality: 1 = local to 7 = global, 1 = only sold nationally to 7 = sold all over the world; standard deviations in parentheses.
the case of the Brandenburg Gate, the test participants agreed more strongly with the statements used to assess self-referencing (self-referencing: $M_{\text{Brandenburg Gate}} = 4.93$, $M_{\text{foreign}} = 4.01, F_{1, 558} = 22.865, p < .001$). Additionally, we proved whether the strong-argument versions caused higher product evaluations than the weak-argument versions. The results indicate that the manipulation of the argument strength was successful (product evaluations: $M_{\text{strong}} = 5.33, M_{\text{weak}} = 3.78, F_{1, 558} = 220.015, p < .001$). Next, we calculated the values for ethnocentrism. We found low values and no differences across the experimental conditions. Therefore, ethnocentrism does not bias our results.

**The Results:** In the next step, we calculated product evaluations for the experimental conditions. The results reported in *Tab. 2* provide evidence that product evaluations are higher in the conditions in which the famous national building (Brandenburg Gate) is shown than in the conditions in which the unknown foreign building is depicted. This effect was observed for both the strong-argument and weak-argument conditions (strong arguments: $M_{\text{Brandenburg Gate}} = 5.58, M_{\text{foreign}} = 5.08, F_{1, 278} = 14.385, p < .001$; weak arguments: $M_{\text{Brandenburg Gate}} = 4.07, M_{\text{foreign}} = 3.51, F_{1, 278} = 12.361, p < .001$). A two-way ANOVA did not reveal an interaction effect between argument strength and the depicted building ($F_{1, 558} = .087, p = .769$). The findings were stable across the brands and thus support H3.

**The Replication Study:** The findings reported above could be valid for a certain case (Germany and the Brandenburg Gate). To prove stability, we replicated the experiment for Head and Shoulders shampoo and collected data from Germany, France, and the U.K. Pre-tests indicated that consumers were unable to assign this brand to a country of origin and rated its internationality rather low. We manipulated the initial page of this brand’s website by including either images of famous national buildings or images of unknown foreign buildings. For the German version, the famous buildings were the Brandenburg Gate, the Neuschwanstein castle, and the Dome of Cologne. For the French and English versions of the brand’s website, we used famous French monuments (the Tour Eiffel, the Arc de Triomphe, and Notre-Dame de Paris) and English monuments (the Tower Bridge, Big Ben, and Westminster Palace), respectively. For the unknown-foreign-building condition, we used the same images in all of the ad versions. These monuments had also been identified in a pre-test. The instruction stating, “Dive in ... and perk up your hair with...” was inserted to link the visit to the buildings with the usage of the shampoo. Again, we conducted an online survey and showed screenshots of the website. In total, 360 students (51% female, $M_{\text{age}} = 23.09, 120 students from each country) participated in this experiment. In the U.K., data were collected in London; in France, we used a sample of students from Paris. The findings of the replication study are summarised in *Tab. 3*. They support H3 (product evaluations in the strong-argument condition: $M_{\text{national}} = 5.36, M_{\text{foreign}} = 4.56, F_{1, 178} = 15.961, p < .001$; product evaluations in the weak-argument condition: $M_{\text{national}} = 3.73, M_{\text{foreign}} = 2.85, F_{1, 178} = 18.095, p < .001$). Additionally, we conducted a three-way ANOVA and included argument strength, the images of the buildings, and the...
 Study based on a German sample  Cross-national replication study

\begin{tabular}{|c|c|}
\hline
Product evaluation & Product evaluation \\
\hline
Unknown & 7 \\
foreign building & 5.08 \\
Brandenburg & 5.58 \\
Gate of Berlin & 3.51 \\
& 4.07 \\
Unknown & 7 \\
foreign building & 4.56 \\
Famous national & 5.36 \\
buildings & 2.85 \\
& 3.73 \\
\hline
\end{tabular}

\textbf{Notes:} Scale ranges from 1 = negative to 7 = positive evaluation.

Strong arguments: • weak arguments: •

respondent’s country of origin as experimental factors. In addition to the main effects of argument strength and the buildings, we found neither a main effect of the respondents’ country of origin nor any interaction effects at the .05 level. Most importantly, we did not find an interaction effect of the buildings and argument strengths on the product evaluations ($F_{1,345} = .116, p = .733$).

In Fig. 13, we show the positive shift in product evaluations caused by depicting the known national buildings in the ads.

6. Conclusions

6.1. Contributions

We contributed to research by analysing whether the pleasant/unpleasant dichotomy can be used to predict the outcomes of instructions to imagine or remember personal experiences. Our results demonstrate the relevance of the suggested dichotomy. Moreover, we contributed to the literature by developing and testing a third model of self-referencing, which we denoted the evaluation-enhancement model. In sum, our research indicates that different self-referencing processes are stimulated by different instructions and peripheral ad cues. In turn, these different processes result in different outcomes for product evaluations.

Based on these findings, we can provide the following recommendations for advertising practices. If strong arguments are available, instructions to imagine or remember an unpleasant event or cues that cause high perceptions of cue/self-similarity should be used. If only weak arguments are available, instructions to imagine or remember a pleasant event or cues that cause high perceptions of cue/self-similarity should be used to improve evaluations.

6.2. Limitations and Suggestions for Future Research

The Affect-Transfer Model: Although several authors have discussed theories that resulted in the affect-transfer model, we were surprised that our data actually supported this model to such a great extent. Can a deficit of strong arguments be simply replaced by verbal instructions to imagine or remember a pleasant event? We are still sceptical about this issue and thus would like to acknowledge important limitations. In the experiments that tested the model, consumers were allowed to view the print ad for as long as they wished. In real-world conditions, the contact time is restricted. Imagine a 15-second TV commercial that asks the audience to remember one’s first car. If the audience subsequently views a commercial that illustrates how dirt can be removed from clothes, the consumer will immediately be attracted to the second stimulus and will be inhibited from generating storylike thoughts about the car that are associated with strong positive emotions. Moreover, instructions to imagine or remember a pleasant event may be effective only if consumers have a single contact with the ad. In the case of multiple contacts, the consumer is likely to refuse to generate self-related thoughts repeatedly. Most critically, situational factors will affect the effectiveness of these instructions. For instance, imagine that a print ad for running shoes asks a consumer to imagine a pleasant event while “running in the park.” These instructions might prompt the consumer to look out the window. However, rainy weather is likely to cause unintended negative self-related thoughts. Thus, we recommend that future research consider these aspects. Experimental designs could include manipulations of the time available to elaborate on the ad, manipulations of the frequency of ad exposures, and manipulations of situations in which the recipients have contact with the ad.

The Evaluation-Amplification Model: To test this model, we used package holidays and running shoes. The students who participated in this experiment may view these products as rather expensive. As a consequence, the personal relevance of correct decisions is high regardless of the presence or absence of instructions. In future research, less expensive products may also be considered to analyse the effectiveness of these instructions.

The Evaluation-Enhancement Model: Admittedly, a wide range of peripheral ad cues can affect perceptions of cue/
self-similarity. Because we focused on only two of these cues (i.e., "The way I live" images and famous people), our current results can hardly be generalised. To further investigate the effect of other peripheral ad cues, such as land-
Gierl/Bombe, How Does Self-Referencing Affect Product Evaluations? A Comparison of Three Models


Keywords
Advertising, affect transfer, sensitivity to personal problems, cue/self-similarity

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Von Prof. Dr. Axel Birk und Prof. Dr. Joachim Löffler
Unter Mitarbeit von Prof. Dr. Dirk Hass und Prof. Dr. Joachim Link.

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