

European Advertising Academy

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Sara Rosengren · Micael Dahlén
Shintaro Okazaki *Editors*

Advances in Advertising Research (Vol. IV)

The Changing Roles of Advertising



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Preface

We are happy to present *Advances in Advertising Research Vol. IV – The Changing Roles of Advertising* published by the European Advertising Academy (EAA). This volume includes revised and extended versions of papers presented at the 11th ICORIA (International Conference on Research in Advertising) in Stockholm, Sweden in June 2012.

Over the past ten years, ICORIA has gained significance in advancing, promoting, disseminating, and stimulating high quality advertising research in Europe – and worldwide. At the same time, something has happened to advertising. Many argue that we are seeing a shift in paradigms from interruption and repetition to co-creation and engagement. The conference theme of ICORIA 2012 was "The changing roles of advertising". Throughout the conference we asked ourselves what happens as advertising increasingly will have to earn consumers' attention rather than force it? And, what role will advertising play for companies, people and society at large? Is advertising really changing or are the changing roles of advertising just an appearance?

The papers included in this volume clearly highlight the complexities and multifaceted nature of contemporary advertising. The 30 papers cover topics ranging from how to deal with social media and media optimization issues to what type of paper to use in print advertising and descriptive studies of advertising appeals used in different markets around the world. The book is structured in four broad themes: 1) The Roles of Advertising, 2) The Faces of Advertising, 3) Perceptions of Advertising and 4) Reception of Advertising.

We want to take this opportunity to thank all the authors for contributing to this volume. Sara and Micael would also like to thank the European Advertising Academy for giving us the opportunity to host ICORIA 2012. We are also indebted to our colleagues at the Center of Consumer Marketing at the Stockholm School of Economics who helped make the conference a big success. We especially thank Hanna Berg, Angelica Blom, John Karsberg, Joel Ringbo, Karina Töndevold, and Nina Åkestam who copy edited and formatted the papers included in this book.

We hope that academics, practitioner, and students alike will find this volume helpful and enjoy reading it.

Sincerely,

Sara Rosengren, Micael Dahlén, Shintaro Okazaki
Stockholm / Madrid, March 2013



EUROPEAN ADVERTISING ACADEMY

The objective of the European Advertising Academy (EAA) is to provide a professional association to academics and practitioners interested in advertising and its applications that will promote, disseminate and stimulate high quality research in the field.

The EAA is closely related to the yearly International Conference on Research in Advertising (ICORIA). The purpose of the conference is to create a forum where people studying advertising in the academic world could exchange ideas, and where they could meet with practitioners who have experience with advertising in the commercial world.

Every natural person that is professionally concerned with or interested in research or teaching in the field of advertising is, irrespective of nationality, eligible to become a full member of the organisation.

For more information, please see: www.europeanadvertisingacademy.org

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Part I. The Roles of Advertising

Customer Engagement Behavior: Interacting with Companies and Brands on Facebook

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1 Introduction

Involvement and integration of online social networks (OSNs) in daily life have gained tremendous significance in recent years. Especially the commercial relevance of OSNs attracts companies in increasing numbers. Today's consumers are exchanging substantial company- and/or brand-specific information online and it is incontestable that interactive social media influence consumer choices (Sands, Harper, and Ferraro, 2011). Nowadays, it is not only the task of companies to find (potential) customers online, but to profit from user-generated content. Companies "need to understand that they share control of the brand with consumers who want and expect to engage with them in a rich online dialogue" (Brown, Broderick, and Lee, 2007, p. 16). Beyond that, there is an "enormous range of information that is readily available to consumers" (Clemons and Gao, 2008, p. 6) contributing to changes in consumer behavior and ultimately advertising. Clemons (2009) argues that traditional advertising is losing its influence and reaching customers with traditional promotion gets considerably more difficult.

Consumers participate in OSNs to produce and consume content and traditional advertising tactics are no appropriate tools (Jothi, Neelamalar, and Prasad, 2011). Although the interactivity on the web changes users' perception of ads, advertising in OSNs is largely unexplored (Hadija, Barnes, and Hair, 2012). Customers' informedness replaces paid corporate promotions as consumers obtain their information from other sources, like online reviews and interactions with friends on OSNs (Clemons, 2009). Hadija (2012) states that OSN users do not dislike advertisements as such, but ads are simply not noticed as other content dilutes the ads' attractiveness. Thus, OSNs as places of social interaction and information exchange require different advertising approaches.

Customer engagement behavior in OSNs can be seen as a new potential for advertising. The empowered customer is a topic becoming increasingly important requiring changes in marketing research and practice (Deighton and Kornfeld, 2009). To take advantage of this opportunity companies need to anticipate consumers to take part, join their group(s) and actively produce content (Pagani, Hofacker, and Goldsmith, 2011). This characterizes the need to investigate what antecedents determine users' interaction behavior with compa-

nies/brands on OSNs. In order to adjust advertising strategies accordingly, marketers should know with whom they are dealing with in OSNs, i.e. what distinguishes engaged customers from users who do not interact with companies/brands at all and why. Thus, more research is required that improves our understanding of consumer behavior especially in online social media (e.g., Hennig-Thurau et al., 2010; Smith, 2009; Winer, 2009).

The focus of this study is on selected customer-based antecedents of customer engagement behavior from the conceptual model proposed by van Doorn et al. (2010). An analysis of some key variables and interactions among these variables that shape consumers' interaction behavior with brands/companies in online social networks is provided. The study will shed light on the relationships among trust, privacy concerns, users' attitudes towards Facebook, social norms, perceived behavioral control, brand engagement, gender and users' actual interaction behavior with brands/companies. The following research questions will be investigated:

- What are the major factors that influence Facebook users to interact with companies/brands?
- What is the difference between users who repeatedly interact with companies/brands on Facebook and those users who solely interact with friends?
- When comparing these two types of Facebook user groups, what is the relevance of trust and privacy concerns in this context?

The broad theoretical framework guiding hypotheses development and selection of customer-based variables is social cognitive theory. Bandura specified a causal model of “*triadic reciprocal causation*” including personal and environmental factors as well as behavior which influence each other (Bandura, 1988, p. 276). The basic assumption for this study is that environmental and social perceptions (i.e. internet privacy concerns, trust in Facebook and trust in Facebook members and social norms) as well as personal perceptions (i.e. attitude towards Facebook, perceived behavioral control (or self-efficacy), brand engagement in self-concept, gender) influence the Facebook users' interaction with companies/brands on the social networking platform.

2 Research model and hypothesis development

2.1 Customer engagement behavior

Customer engagement has become a common buzzword in marketing research and practice (Brodie, Ilic, Juric, and Hollebeek, 2013). Users request interactivi-

ty and engaging content, thus keeping up with this development is a crucial point for advertising (Stockman, 2010). This study focuses on consumers' interactions with companies/brands on Facebook as a specific manifestation of customer engagement behavior. Following the conceptualization proposed by van Doorn et al. (2010) and Verhoef et al. (2010) customer engagement can be "defined as a customer's behavioral manifestations that have a brand or firm focus, beyond purchase" (van Doorn, et al., 2010, p. 254). For customers, OSNs offer new possibilities, turning their passive position into active involvement; they comment, review and publish information about brands online. Such online interaction between customers and companies is needed to build long-term relationships, where customers do not only acquire the product or service but will start to recommend it (Smith, 2009). Consumers feel appreciated if their opinions are valued by companies; consequently, they are more motivated to communicate to other users about products and services (Stockman, 2010). However, socialization processes such as interactions in OSNs require certain antecedents to be successful. Recent research on selected issues of trust and privacy in OSNs makes it evident that these concepts are critical and crucial regarding users' participation and disclosure of information (e.g., Chen and Sharma, 2011; Fogel and Nehmad, 2009; Krasnova, Spiekermann, Koroleva, and Hildebrand, 2010; Shin, 2010; Stutzman, Capra, and Thompson, 2011).

2.2 Trust in Facebook and in its members

OSNs foster socialization and therefore, the success of OSNs is largely determined by social factors such as trust (de Souza and Preece, 2004; Toral, Martínez-Torres, Barrero, and Cortés, 2009). Trust has to be seen as an important catalyst in facilitating social interaction and making virtual communities vibrant (J.-J. Wu, Chen, and Chung, 2010). Similarly, in their conceptual model for customer engagement van Doorn, et al. (2010a) emphasize that trust has to be considered a vital factor influencing (positive) customer engagement behavior. Trust in OSNs exists both on a micro- and macro group level. At the macro level, the social network site captures both characteristics of an organization (the network provider) and technology (the Internet serving as a transmission medium for online activities). At the micro level, online users engage and interact with each other. Therefore other members of the OSN also have to be regarded as trust-objects. We assume that even higher levels of trust are required for users' interaction with companies/brands in OSNs because frequently additional information has to be revealed. For instance, users post messages on a company's Facebook wall to obtain specific information from the company. Users might also comment posts/videos/pictures of the brand and/or upload pictures/videos presenting themselves with the brand.

- H1 Trust in Facebook is positively related to the user's interaction with companies/brands on Facebook.*
- H2 Trust in Facebook members is positively related to the user's interaction with companies/brands on Facebook.*

2.3 Internet Privacy Concerns

Individuals with higher concerns about their privacy will be more restrictive regarding their shared information (Nov and Wattal, 2009; Young and Quan-Haase, 2009). Since OSNs are a field of marketing opportunities for businesses that engage in Internet Marketing (Lorenzo-Romero, Constantinides, and Alarcón-del-Amo, 2011) and have enormous commercial potential (e.g., Dinev, Xu, and Smith, 2009), it is essential for companies to take users' privacy concerns seriously.

Tucker (2011) empirically proved that when giving users the perception of more control over their personal data, they will click more often on personalized ads. Companies will only be in the position to profit from (potential) consumers in OSNs, if those users are also willing to disclose information and are not hindered by their concerns regarding privacy.

- H3 Internet privacy concerns negatively impact the user's interaction with companies/brands on Facebook.*

2.4 Attitude, social norm and perceived behavioral control

One social-cognitive theory that has proven its worth in understanding consumer behavior is the theory of planned behavior (Ajzen, 1991, 2002). In various studies, the theory of planned behavior defines the relationship of attitude, subjective norm and perceived behavioral control towards the intention to conduct a certain behavior (e.g., Hsu and Chiu, 2004; Lin, 2010; Lu, Zhou, and Wang, 2009; Lwin and Williams, 2003; Pelling and White, 2009). Attitude refers to the users' general viewpoint and personal position towards a behavior; subjective norm or social norm to the influence of other people on the users' behavioral actions; and perceived behavioral control to the perceived ability to perform a certain behavior or sequence of behaviors (Ajzen, 2002). Conceptually, perceived behavioral control is more or less indistinguishable from perceived self-efficacy, a key mechanism in the framework of social cognitive theory. For this study perceived behavioral control reflects the user's belief that s/he is capable using Facebook.

- H4 The user's attitude towards Facebook is positively related to the user's interaction with companies/brands on Facebook.*

- H5 The user's subjective norm is positively related to the user's interaction with companies/brands on Facebook.*
- H6 The user's perceived behavioral control is positively related to the user's interaction with companies/brands on Facebook.*

2.5 Brand engagement in self-concept

A brand is a crucial criterion for the engagement of customers after purchase (van Doorn et al., 2010). In this study, the focus is not on a specific brand but on a person's "general engagement with brands", a concept called brand engagement in self-concept (BESC) developed by Sprott, Czellar and Spangenberg (2009). This concept assumes that consumers have a basic disposition towards brands affecting various brand-related cognitions, behaviors, etc. and captures the extent to which individuals assume brands are part of their self-concept. As an individual difference variable BESC arrays consumers along a continuum ranging from low (brands are not seen as important elements of self-concept) to high, where consumers identify with brands and have special bonds with them (Goldsmith, Flynn, and Clark, 2011). It can be expected that consumers with higher levels of BESC are also more willing to interact with companies/brands in OSNs. Hence,

- H7 The user's BESC positively influences interactions with companies/brands on Facebook.*

We also asked whether BESC would moderate the relationships between attitude, perceived behavioral control, subjective norm and interaction behavior with companies/brands. E.g., we propose that the effect of the user's attitude towards Facebook on the interaction behavior with companies/brands on Facebook will be stronger for individuals with a high level of BESC than for users with a low level of BESC.

- H8 BESC moderates the relationship of attitude on the user's interaction behavior with companies/brands on Facebook.*
- H9 BESC moderates the relationship of perceived behavioral control on the user's interaction behavior with companies/brands on Facebook.*
- H10 BESC moderates the relationship of subjective norm on the user's interaction behavior with companies/brands on Facebook.*

Finally, we include gender as a further predictor variable in our study and also address its moderating influence. Previous research found considerable gender differences for online communication (e.g., Wang, Jackson, and Zhang, 2011), the usage of online social networks (e.g., Mazman and Usluel, 2011),

time spent on online social networking sites (e.g., Cha, 2010) as well as indirect effects of gender on brand communication (e.g., Acar and Polonsky, 2008).

H11 Gender will influence the interaction behavior of users with companies/brands on Facebook.

H12 Gender moderates the relationship of the user's BESC on his/her interaction behavior with companies/brands on Facebook.

3 Empirical Study

3.1 Data collection and sample characteristics

The data used to test the proposed hypotheses were collected by means of an online questionnaire. The survey addressed solely Facebook users and thus the link to the questionnaire was only spread via the online social network "Facebook". A total of 427 responses were received from which 358 were valid for analyses. The sample consists of 43.3% men and 56.7% women and is dominated by 20-29 year-olds (63.4%), followed by the groups of 30-39 and <20 year olds.

3.2 Measurements and construct specifications

All measurements and items employed for the constructs, being the independent variables in this study, were taken from literature and measured on a 7-point Likert-type scale (7=strongly agree to 1=strongly disagree). If necessary, items were adapted to the Facebook and the OSN context. Items are listed in table 1.

Table 1: Measurements

<i>Construct & Source</i>	<i>Item text (adapted)</i>
Trust in Facebook (TRUSTFB) (Krasnova et al., 2010)	Facebook ... <ul style="list-style-type: none"> - is open and receptive to the needs of its members - makes good-faith efforts to address most member concerns - is also interested in the well-being of its members, not just its own - is honest in its dealings with me - keeps its commitments to its members - is trustworthy
Trust in Facebook members (TRMEM) (Krasnova et al., 2010)	Other members on Facebook... <ul style="list-style-type: none"> - will do their best to help me - do care about the well-being of others - are open and receptive to the needs of each other - are honest in dealing with each other - keep their promises - are trustworthy

Internet Privacy Concerns (INTPC) (Dinev and Hart, 2006)	I am concerned that the information I submit on the Internet could be misused. I am concerned that a person can find private information about me on the Internet. I am concerned about submitting information on the Internet, because of what others might do with it. I am concerned about submitting information on the Internet, because it could be used in a way I did not foresee.
Brand Engagement in Self-Concept (BRA) (Sprout et al., 2009)	I have a special bond with the brands that I like. I consider my favorite brands to be a part of myself. I often feel a personal connection between my brands and me. Part of me is defined by important brands in my life. I feel as if I have a close personal connection with the brands I most prefer. I can identify with important brands in my life. There are links between the brands that I prefer and how I view myself. My favorite brands are an important indication of who I am.
Attitude towards Facebook (ATT) (Lai and Li, 2005)	In my opinion, it is desirable to use Facebook. I think it is good for me to use Facebook. Overall, my attitude towards Facebook is favorable.
Subjective Norm (SN) (I.-L. Wu and Chen, 2005)	People who are important to me would think that I should use Facebook. People who influence me would think that I should use Facebook. People whose opinions are valued to me would prefer that I should use Facebook.
Perceived Behavioral Control (PBC) (I.-L. Wu and Chen, 2005)	I am able to use Facebook. Using Facebook is entirely within my control. I have the resources, knowledge and ability to use Facebook.

Confirmatory factor analysis (CFA) was conducted to test the constructs using AMOS 18. All items loaded significantly above the cut-off value 0.6. All constructs in the analysis showed satisfying Cronbach's alpha values (> 0.7) and confirm, together with the average variance extracted (> 0.5) and composite reliability (> 0.7), convergent reliability. Discriminant validity was tested with the Fornell-Larcker criterion; all constructs were below the critical value of 1 (for details see table 2). The dependent variable, interacting with companies/brands, was measured on an 8-point frequency scale (8=more than once daily to 1=never). Participants were asked if they suggest sites from companies/brands to their friends, use the "like" button for sites from companies/brands, comment the status/links from companies/brands, join groups from companies/brands, write on the wall of companies/brands and finally accept or reject invitations from companies/brands. The mean of those six items was calculated and the new variable was called "interacting with companies/brands on Facebook". We split the participants into two groups: the users interacting with companies/brands at least once a month, referred to as "repeated interactors" and the users never interacting with companies/brands on Facebook, referred to as "non-interactors".

Table 2: Reliability measures of constructs

	<i>Cronbach's Alpha</i>	<i>Composite reliability</i>	<i>AVE</i>	<i>Fornell-Larcker-criteria</i>
	>0.7	>0.7	>0.5	<1
TRUSTFB	.908	.908	.623	.428
TRMEM	.913	.908	.624	.212
ATT	.911	.912	.775	.470
BRA	.957	.957	.735	.078
INTPC	.939	.940	.797	.042
SN	.934	.935	.827	.125
PBC	.780	.781	.547	.667

3.3 Results

In order to reveal the differences between the two groups of “repeated interactors” and “non-interactors” in respect of the applied constructs we conducted a t-test. All constructs show significant differences between repeated interactors and non-interactors (except for trust in Facebook being only significant at a 10 % level). See table 3.

Table 3: Repeated Interactors versus Non-Interactors – T-test results

	Non-Interactor	Repeated Interactor	Difference	p-value
Trust in Facebook	3.305	3.715	-0.410 *	0.060
Trust in Facebook Members	3.509	3.989	-0.480 ***	0.006
Attitude towards Facebook	4.039	5.362	-1.323 ***	0.000
Subjective Norm	3.359	3.910	-0.550 **	0.046
Brand Engagement	2.208	3.348	-1.140 ***	0.000
Internet Privacy Concerns	5.510	4.703	0.806 ***	0.002
Perceived Behavioral Control	5.217	5.921	-0.704 ***	0.001

*p<0.1 **p<0.05 ***p<0.01

Due to the dichotomous character of the dependent variable (repeated interactors versus non-interactors), we applied binary logistic regression analyses using PASW (SPSS) 18.0 to test the established hypotheses. All variables were standardized (M=0; SD=1) before analyses. The interaction effect model (table 4) shows good model-fit values of the Cox & Snell R Square (.433) and the Nagelkerke R Square (.581). Additionally, the overall sample of correct cases classified is 82.4 % with 78.0 % of repeated interactors and 85.7 % of non-interactors correctly identified. The coefficients for attitude towards Facebook ($\beta=1.598$, $p<0.01$) and for brand engagement in self-concept ($\beta=1.762$, $p<0.01$) are highly significant and positive, accepting H4 and H7. Also, the predictor gender is highly significant ($\beta=1.683$, $p<0.01$) confirming H11 that gender in-

fluences brand-related activities on Facebook. Additionally, a clear negative and highly significant influence of Internet privacy concerns on the interaction behavior is recorded ($\beta=-.781$, $p<0.01$), accepting H3. The hypothesized assumptions (H1, H2, H5 and H6) regarding the constructs trust in Facebook, trust in its members, subjective norm and perceived behavioral control have to be rejected due to non-significance. Looking at the interaction terms, it can be highlighted that brand engagement in self-concept moderates the relationships between attitude towards Facebook ($\beta=1.073$, $p<0.05$) as well as perceived behavioral control ($\beta=-1.152$, $p<0.01$) and interaction behavior. Additionally, gender moderates the relationship between the BESC construct and interaction behavior ($\beta=-1.359$, $p<0.05$). Hence, H8, H9 and H12 are accepted. H10 is rejected.

Table 4: Binary logistic regression analysis - interaction effect model

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Trust in Facebook	-.398	.309	1.654	1.000	.198	.672
Trust in Facebook Members	-.079	.275	.083	1.000	.773	.924
Attitude towards Facebook	1.598 **	.453	12.431	1.000	.000	4.944
Brand engagement	1.762 **	.430	16.764	1.000	.000	5.826
Internet Privacy Concern	-.781 **	.282	7.650	1.000	.006	.458
Subjective Norm	-.253	.272	.869	1.000	.351	.776
Perceived behavioral control	-.158	.363	.188	1.000	.664	.854
Gender (male)	1.683 **	.526	10.222	1.000	.001	5.379
Brand engagement x gender	-1.359 *	.624	4.747	1.000	.029	.257
Brand engagement x attitude	1.073 *	.431	6.191	1.000	.013	2.924
Brand engagement x social norm	-.113	.242	.216	1.000	.642	.894
Brand engagement x perceived behavioral control	-1.152 **	.391	8.681	1.000	.003	.316
Constant	-1.288	.398	10.481	1.000	.001	.276
Number of observations	136.0					
-2 Log likelihood	108.872					
Model chi-square (df=12)	77.275					
Significance	$p<0.01$					
Cox & Snell R Square	.433					
Nagelkerke R Square	.581					
Correct cases classified:	Repeated Interactors	Non-Interactors	Overall sample			
cut-value: 0.5	78.0%	85.7%	82.4%			

Notes: Dependent Variable is "Interacting with companies/brands in Facebook"

0= Non-Interactors 1 = Repeated Interactors

Variables in the equation were standardized

Level of significance: * $p < 0.05$; ** $p < 0.01$

4 Discussion and implications

This paper aims at providing a better understanding of the determinants of consumers' interactions with companies/brands on Facebook by examining the impact of selected customer-based factors on users' interaction behavior. Online

platforms like Facebook offer companies the chance to directly profit from the opinions and feedback of their (future) customers. Thus, “not incorporating social networks as a part of the marketing mix is not only poor customer service, but also a surefire way to lose consumers.” (Pookulangara and Koesler, 2011, p. 352). Although OSNs have experienced exponential growth in membership in recent years, there is relatively little theory-driven empirical research available to address these new complex communication and interaction phenomena (e.g., Cheung and Lee, 2010; Shin, 2010).

The study has several implications for the role of advertising in OSNs. First of all, different types of Facebook users have to be distinguished. The results showed that there are differences among repeated interactors and non-interactors with companies/brands on Facebook. Secondly, by knowing that repeated interactors are not as much concerned about their privacy as non-interactors, it can be assumed that those users are more willing to add information and produce content. Thus, advertisers could engage in specific communication tactics, for instance discussions on new products. The active involvement of customers could be a key criterion for successful promotion in OSNs. However, the aim of advertisers is to define methods so that positive features of their products/services are promoted and spread by OSN users (Stockman, 2010). Stockman suggests that this can be solved by the thoughtful choice of message vehicles.

This research also supports the argument that it is crucial for companies to find an acceptable balance between harvesting personal customer information and causing consumers’ privacy concerns (Zimmer, Aarsal, Al-Marzouq, Moore, and Grover, 2010); companies need to take privacy concerns seriously and should invest in trust building measures (Chellappa and Sin, 2005). Finally, advertisers should try to concentrate on users with a positive attitude towards Facebook and a high level of brand engagement, as their chances for repeatedly interacting with companies are much higher compared to other users.

To sum up, the contribution of this paper lies in providing empirical evidence on the role of some key variables in explaining consumers’ interaction behavior with companies/brands on Facebook. It is important to further investigate online social network users who actively engage with companies/brands, since the relevance of online social media marketing is continuously augmenting. OSNs are places of information exchange where advertisers meet their (potential) consumer on a “friendship” basis. As a result, “[m]arketing communication is becoming precise, personal, interesting, interactive and social” (Jothi et al., 2011, p. 234). The tendency that interacting in online social environments is part of daily life, especially for younger generations, puts even higher pressure on future empirical research, also in the area of advertising. It is central to develop a profound understanding of consumers in OSNs in order to properly

target this fast increasing group of customers and to adapt and restructure advertising tactics accordingly.

Limitations associated with the study include inter alia the limited number of selected antecedents, the sole focus on the OSN Facebook, a sample mainly originating from Europe and the non-random nature of the convenience sampling.

5 Conclusion

“Online social media offer the opportunity to connect with audiences drifting away from traditional media.” (Brown et al., 2007, p. 16). Web 2.0 developments enable advertisers to personalize and provide tailor-made ads to their customers, making advertising more informative (C. E. Tucker, 2012). Keeping up with the trends and understanding (potential) customers is crucial to ensure that they have a pleasant experience with the advertisement (Stockman, 2010). This study contributes to the current research field by further investigating the complex and vast environments of online social networks in view of marketing aspects. This paper lays a first foundation to analyze the differences between OSN users and their interaction behavior with companies. This study can support advertisers to understand whom they have to target in order to effectively communicate their brand among OSN users. Overall, the results demonstrate that interactors and non-interactors vary significantly in their environmental and personal perceptions. By identifying antecedents for customer engagement behavior in OSNs we found that, against our expectations, trust (in Facebook or its members) is not significantly differentiating interactors from non-interactors. However, the results confirm the importance of other determinants of customer engagement behavior on Facebook. Especially internet privacy concerns, the users’ attitude towards Facebook and brand engagement in self-concept are crucial predictors for users’ interactions with companies/brands. Beyond that, the findings suggest that there is a significant gender difference among users who repeatedly interact with companies/brands on Facebook and those who don’t. The analysis also contributes to the current field of research by uncovering interaction effects. We found that the relationships between user’s attitude towards Facebook, perceived behavioral control and the user’s interaction behavior with companies/brands are moderated by brand engagement in self-concept. Additionally, gender moderates the influence of BESC on customer engagement behavior in Facebook.

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Choose Your Ad Paper Type Carefully: How Haptic Ad Paper Characteristics Affect Product Judgments

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1 Introduction: The importance of haptic sensations in advertising

While consumers are browsing through the pages of a magazine, they are confronted with numerous print ads – and as research shows, most of them will be ignored or considered incidentally. Consumer's ad exposure is extremely short. In a broad audience magazine, for example, brands just have on average 2 seconds to convey their messages via a one-page ad (Armstrong, 2010, 246). Thus, to ensure communication effectiveness, companies have to communicate quickly. To convey a message via a print ad, one can employ visual, verbal, olfactory, or haptic information. Considerable amount of research focuses on verbal and visual information, a few papers consider scent in print ads, however, haptic characteristics have been neglected widely yet.

As consumers have been found to be receptive for haptic information (Peck and Childers, 2006, 2008), ad paper type might be an effective additional means to convey brand-related information. Furthermore, new technologies provide the opportunity to print ads in broad audience magazines on different paper types. Following the notion of grounded cognition (e.g., Barsalou, 1999; 2008; Barsalou, Simmons, Barbey and Wilson, 2003), the haptic sensation evoked by the paper an ad is printed on should affect consumer's judgment of the advertised product. Thus, by touching ads, paper type characteristics could alter the judgment of specific product characteristics.

In this paper, we address the questions of how the *weight* and the *texture* of a print ad's paper will alter product judgments of an advertised product. Therefore, we conducted two experiments that study the effects of paper weight and paper roughness on the judgment of a running shoe.

In the next section, we *firstly* review the literature about the effects of haptic sensations in marketing and advertising. This review will show that the effects of haptic attributes of print ads on product judgments have been neglected so far. *Secondly*, we will provide a *three-step alignment framework* that conceptualizes the impact that haptic print ad qualities have on product judgments.

2 Theoretical background: How touch affects consumers' judgments

The sense of touch is fundamental among the human senses. It provides the ability to acquire information about tangible objects with our hands in order to learn and comprehend our environment (Ackerman, Nocera and Bargh, 2010). In interpersonal research, studies by Bargh and colleagues (Williams and Bargh, 2008; Ackerman et al., 2010) showed that haptic sensations could even affect social judgments.

Surprisingly, despite its importance and omnipresence, haptics is among the least studied senses in marketing and consumer research (Peck and Childers, 2008). So far, research predominantly considered the *moderators* of haptic sensations (e.g., Citrin, Stem, Spangenberg and Clark, 2003; Peck and Childers, 2003a) and the *evaluative influence touch* can exert (e.g., Peck and Childers, 2003b; Marlow and Jansson-Boyd, 2011; Peck and Wiggins Johnson, 2011). Overall, only few studies focus on how haptic sensations operate in an advertising context (Peck and Wiggins, 2006; Hampel, Heinrich and Campbell, 2012).

2.1 General findings on touch

Research has shown that haptic sensations exert a persuasive impact in two ways. *Firstly*, research provides evidence that touch affects evaluative processing in general (Peck and Childers, 2003b; Peck and Shu, 2009; Peck and Wiggins, 2006). Peck and Childers (2003b) found that touching a product helps consumers with a high need for touch to evaluate the product and, thereby, increases the confidence of their judgment. Moreover, mere touching raises consumers' perceived ownership of an object (Peck and Shu, 2009). Peck and Wiggins (2006) showed that adding a haptic element (e.g., a feather) to a pamphlet leads to a more positive attitude towards the communication means than in the no touch condition for people with a high need for touch. Interestingly, the fit of the haptic element did not play any role for those consumers – the mere presence of touch increased persuasiveness. *Secondly*, it has been shown that the persuasive impact of haptic properties depends on the specific quality of the haptic sensation (Marlow and Jansson-Boyd, 2011; Hampel et al., 2012). Research on haptic sensations confirmed that “not all material properties create the same type of response in consumers” (Peck and Childers, 2008; 207). Marlow and Jansson-Boyd (2011) showed that depending on the haptic sensations of packaging materials perceived attractiveness of a product varied. However, vision exerted a stronger influence on product evaluations than touch. Recently, a study by Hampel et al. (2012) investigated the effects of premium-paper on the evaluation of print ads. Their participants had to rate the ads of a household appliance and a luxury watch, either printed on high-quality paper with a highly glossy surface or on a standard paper type. Their results show, that premium-paper positively

affects consumer evaluations of the ad and the brand. Table 1 provides an overview of the major findings concerning the persuasive effects of haptic sensations.

Table 1: Literature overview: Evaluative effects of touch

<i>Authors</i>	<i>Major Findings</i>
Peck and Childers (2003b)	Touching a product has been found to increase attitude confidence and to decrease frustration with the evaluation task for people with a high need for touch.
Peck and Childers (2006)	Impulse buying behaviour of fruits is affected by environmental touch-related factors such as a point of purchase sign in a grocery store that prompts “feel-the-freshness.”
Peck and Wiggins (2006)	Communication means (e.g., a pamphlet) that incorporate touch elements (e.g., a feather on the front page) lead to an increase in attitude towards the ad for people with a high need for touch.
Peck and Shu (2009)	Mere touching of an object leads to an increase in perceived ownership for the object.
Marlow and Jansson-Boyd (2011)	Perceived attractiveness of packaged goods varies with their haptic qualities. However, the attractiveness of fast-moving consumer goods is stronger affected by vision than by touch.
Hampel et al. (2012)	Ads printed on premium-paper (high quality paper with a glossy surface) positively affect perceived uniqueness and exclusiveness of an ad. Moreover, consumers’ attitudes towards the ad and towards the brand, their willingness to buy, positive word of mouth intention, and willingness to pay premium prices are positively affected.

To sum it up, recent research in marketing and advertising on haptic sensations has primarily concentrated on the presence or absence of touch but scarcely on the *quality of haptic impressions*. Thus, the issue how specific haptic attributes can affect the judgment of specific product attributes has been unexplored yet. Especially haptic attributes like texture, hardness, or weight (Klatzky and Lederman, 1992; Lederman and Klatzky, 1987; 1993; Peck 2010) have not been focused in marketing or advertising research. It is the aim of this paper to address this research gap by studying how different haptic attributes such as paper weight and paper texture of print ads affect consumers’ product judgments.

2.2 Grounded cognition: The representation of haptic information in the mind

Grounded cognition provides the basis to explain how a print ad's haptic properties, such as texture and weight, are processed in conjunction with an advertised product. According to grounded cognition, conceptual knowledge is partly embodied in the perceptual states of the sensory-motor system (Barsalou et al., 2003; Rubin, 2006). This knowledge is modal and related to the sensory systems (Barsalou, 1999). "As an experience occurs [...], the brain captures states across the modalities and integrates them with a multimodal representation stored in memory" (Barsalou, 2008, 618). For example, imaging to hold a snowball in the palm of a hand activates an authentic impression of how it looks and feels, the action of molding or throwing it, or introspections of its coldness. By activating such concepts, people can consciously and unconsciously (partly) re-experience modal sensation like haptic impressions (Barsalou, 2008). Moreover, higher cognitions such as inferential processes are also partly grounded and based on modal memories (Barsalou, 2010).

2.3 Structural alignment theory: How haptic ad properties affect product judgments

Structural alignment theory is based on analogical reasoning about two related stimuli (Markman and Gentner, 1993; Gentner and Markman, 1994; 1997). We borrow the notion of structural alignment theory to provide an explanation how the attributes of a product (e.g., a running shoe) and the haptic properties of a print advertisement (e.g., paper weight or paper texture) interact during the perception of the ad.

Typically, objects are represented as schemata that encompass the typical knowledge about a category (Barsalou et al., 2003; Casson, 1983; Murphy, 2004). According to Minsky (1975), schemata consist of slots and values. While slots cover typical product attributes such as "color," "size," or "price," values represent concrete executions of product attributes such as "red," "small," or "expensive." For example, the schema of a running shoe contains slots for "weight," "price," and many other attributes. Concrete values for the slot "weight" could be "heavy" or "light." The schema of a print ad on the other hand contains slots like "size," "color," or its "haptic impression."

The structural alignment approach by Markman and Gentner (1993; Gentner and Markman, 1994; 1997) explains how values are transferred from one schema (e.g., a print ad) onto another (e.g., a running shoe). According to structural alignment, recipients *firstly* compare the two schemata concerning their similarities and differences. Thereby, all slots will be identified that are present in both schemata. Gentner and Markman (1997) differentiate between commonalities as well as alignable and non-alignable differences. Commonalities refer to slots

with identical values, while alignable differences refer to similar slots which vary in their values (Zhang and Markman, 2001). Non-alignable differences are slots that are just present in one of the two schemata. *Secondly*, in the subsequent process of alignment, alignable differences are eliminated by transferring the different value of one slot (e.g., heavy weight of ad paper) onto the slot of the other schema (e.g., weight of running shoe). *Thirdly*, based on this value transfer, recipients may draw further conclusions about the object (e.g., assumed product abilities such as suitability for different running purposes).

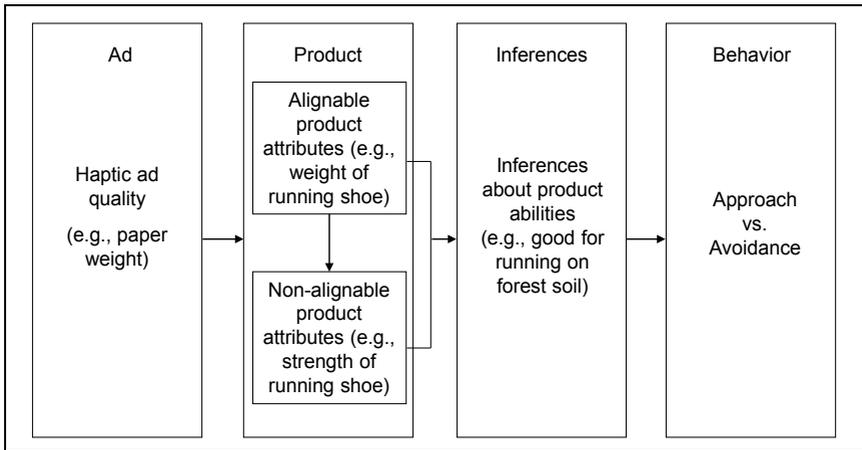


Figure 1: The alignment framework

Figure 1 illustrates the process from touching an ad to the subsequent product evaluation. Considering the ad, recipients will activate their schemata for ads and running shoes. According to structural alignment theory, the two schemata are compared in order to identify value differences in common slots. Assuming that an ad for a conventional running shoe is printed on a very heavy paper, the value “heavy” of the paper’s slot “weight” should be transferred onto the corresponding slot in the shoe schema. Thus, a consumer should infer the impression that the advertised running shoe is heavy. Based on the attribution, recipients may draw further conclusions about the shoe. For example, consumers might believe that a “heavy” shoe is better suited for outdoor than indoor running. Thus, we propose that a print ad’s haptic properties can influence the perception of corresponding product properties. This leads to our hypotheses:

H1: A running shoe advertised on heavy paper will be judged as being heavier than a running shoe advertised on light paper.

H2: A running shoe advertised on rough paper will be judged as being stronger than a running shoe advertised on smooth paper.

3 Study 1: The effects of paper weight on product judgments

The purpose of study 1 is to analyze the effects paper weight of a print ad exerts on the evaluation of a running shoe.

Design, participants, and procedure: Study 1 was a between-subjects design examining the effects of heavy and light paper on product judgment. Forty university students were individually interviewed (50% female). Participants were asked to hold the print ad in their hands while judging the product. The participants were asked to answer the questionnaire verbally, while holding the print ad. Thereby, potential haptic irradiations from touching the pen or the paper of the questionnaire should be avoided.

Stimuli: The print ad showed a picture of a typical running shoe branded with the fictitious brand name “Dene.” The ad included information that was unrelated to the product attributes of the running shoe (e.g., “available in Germany from February 2012,” “available in sport stores or online”). The weight of the heavy paper was 220g and the weight of the light paper was 90g.

Measures: Participants had to judge several product attributes of the running shoe such as “light/heavy” and “weak/strong.” In addition, they had to rate the shoe’s suitability for different running purposes, such as “the shoe is suitable for running in heavy terrain” or “the shoe is suitable for running on forest soil.” The questionnaire finished with questions about the participant’s socio-demographics.

Results: Pairwise one-tailed t-tests showed that the two ads did not lead to different product judgments. Furthermore, the shoes’ suitability for running on forest soil and in heavy terrain was also not significantly different between the two conditions. Hence, hypothesis 1 has to be rejected.

4 Discussion

Contrary to our hypothesis, the results of study 1 show no impact of the ad’s paper weight on the corresponding product attributes. Next, we discuss potential explanations and point out implications for future research.

A possible prerequisite to transfer the value of the slot paper weight onto the running shoe might be that consumers’ attention is drawn to the ad’s paper weight. Thus, one might have to ensure that the paper weight gets in the focus of

consumers' perception. Therefore, an explanation for our finding might be that participants did not recognize the ad's paper weight. Probably, the paper weight remained unnoticed and did therefore not alter product perceptions. Additionally, a paper of 220g might still not be heavy enough for being perceived as a particularly heavy paper. Furthermore, due to our between-subjects design, participants did not get a comparative impression of different paper weights (as it would be in the case of browsing through the pages of a booklet) that may enhance effect size. Thus, a within-subjects design may lead to different results.

Hence, future studies should address these open questions and should test whether heavier paper types (e.g., 300g or 350g) or cues that direct consumer's attention to an ad's paper weight may lead to different results. Finally, there remains the possibility that an ad's paper weight just has no impact on product judgment.

In the second experiment, we will analyze which impact the haptic quality paper texture has on product judgment.

5 Study 2: The effects of paper texture on product judgments

Participants, design, and procedure: Analog to study 1, the second experiment was a between-subjects design testing the effects of smooth vs. rough paper on product judgments. 47 university students were individually interviewed (55.3% female). Procedure and measures were identical to study 1.

Stimuli: Except for the texture and the weight of the paper, the stimuli were identical to those of our first study. We tested 120g paper with a rough texture vs. 120g paper with a smooth texture.

Results: Pairwise one-tailed t-tests were calculated. As assumed in H2, the judgments evoked by the two ads differed significantly. The running shoe advertised on rough paper was perceived as being significantly stronger compared to the shoe in the smooth paper condition. Moreover, the shoe's suitability for running on forest soil and for running on heavy terrain were judged as significantly (respectively marginally significantly) better in the rough paper condition.

6 Conclusion

Paper texture affects the judgment of an advertised product: In our experiments paper weight had no impact on product judgment whereas paper texture affected the way how consumers perceived a product. Our findings for paper texture can be summarized in a *three-step-alignment framework* that explains how haptic ad qualities affect product perception (see figure 1). In a *first step*, recipients compare the two schemata (ad paper and running shoe) concerning their similarities

and differences. In a *second step*, differences between the schemata are eliminated by transferring slot values (e.g., rough texture of ad paper) from one schema onto the slots of the other schema (e.g., strength of running shoe). In a *third step*, recipients may draw further inferences (e.g., suitability for running on heavy terrain) about the product based on the foregoing value transfer. Overall, our results confirm the grounded cognition approach as advocated by Barsalou (1999; 2008; 2010). Thus, product cognitions are (partly) grounded in the perception of haptic paper qualities (when the ad paper is rough).

Open questions about the impact of paper weight: However, there are still some open questions concerning the role paper weight plays in the process of product judgment. In terms of structural alignment theory, the paper weight of an ad was not mapped onto the weight of the running shoe schema. The question remains whether paper weight affects product judgment or not. We still assume that paper weight has an impact on product perceptions. However, a prerequisite for this effect might be that the weight sensation has to reach a certain threshold to draw consumers' attention to the ad's paper weight. In other words, one might have to make sure that the paper weight gets in the focus of consumers' perception. Thus, the stimulus paper used in our experiment might have been just not heavy enough to exert an impact, or the difference of the paper weight in the two conditions might not have been big enough to evoke different product judgments. Hence, further studies have to be conducted in order to address the effects of paper weight and the impact of potential moderator effects.

To sum it up, our results show that haptic paper qualities of a print ad can influence the judgment of the advertised product. Thus, advertisers should choose the paper type of their advertising materials carefully. However, our results are tentative. Further studies have to be conducted in order to answer the open questions concerning the impact of paper weight. Moreover, our results should be replicated for other product categories and different attributes. Finally, it would be interesting to analyse the effects of haptic ad characteristics on non-alignable differences such as a product's price.

7 References

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Social Media Engagement that Drives Purchase Behavior

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1 Introduction

The Internet and social media are enabling many new forms of advertising. The first decade or so of Internet advertising—largely consisting of display banner ads and email blasts—followed the approach of traditional print, broadcast, sale promotion and direct advertising, where the advertiser exposes passive eyeballs to some message, perhaps with a call to action inviting a click. The rise of social media and the proliferation of mobile devices are enabling new brand contact points that are more engaging and interactive. Such interactive contact points have the potential to be highly effective because they require the consumer to “lean forward” and actively process the brand meaning. But little is known about whether they affect purchase behaviors or how to design effective prompts.

One form of interactive contact point is the social media forum, where customers create or consume user-generated content (UGC), usually about a brand. In some cases consumers are incentivized to participate by either receiving some compensation from the sponsoring company, or by having a chance to win a large prize. For example, Procter and Gamble’s “The Mess Behind the Glory” contest for Bounty paper towels featured Olympic gold medalist Shawn Johnson. The Pepsi MAX contest asked users to create an ad for Pepsi MAX. In Germany, McDonalds asked customers to propose a sandwich and the winner—the “Mc Brezel”—was offered at stores in Germany for a period of time and the winner received recognition.

The focus of this article is on such UGC. We make three contributions. First, while such social media events and contests are becoming more common, there are no published studies measuring their effect on purchase behaviors. We test whether participating affects purchase behaviors and illustrate ROI calculations. Second, we discuss an explanation for the effect, which will help organizations create more effective contests going forward. Third, we will investigate the longevity of the effect—after participating, how long is behavior affected?

2 Description of data and possible theoretical explanations

We analyze data from the Air Miles Reward Program (AMRP), which has been operating in Canada since 1992 and is one of the largest loyalty programs in the world with over 10 million members representing over 67% of Canadian house-

holds. As a coalition loyalty program, members collect miles at over 100 sponsors in categories covering most aspects of purchases including groceries, gasoline, apparel and credit card purchases. Collected miles can be exchanged for rewards such as travel (e.g., airline tickets, hotels), merchandize (e.g., toasters, blenders) and gift cards (e.g., gas, movies, groceries, home improvement).

In March 2009 AMRP launched a social media website for members to discuss the program and benefits. Posts made by members can be linked to their mile accumulation. Since the number of miles issued is roughly proportional to the amount spent, mile accumulation measures purchase behavior. Thus, this data set provides a unique opportunity to measure the effect of participation in a social media forum on purchase behaviors with the brand, in this case AMRP. If activity on the AMRP social media site affects the behavior of members, then their accumulation should increase for two possible reasons. First, they could switch their purchases to AMRP sponsors. For example, Shell is the AMRP sponsor in the gas category, and members could increase their accumulation by purchasing gasoline at Shell rather than a competitor. Second, a member could already be shopping at an AMRP sponsor but not swiping the card at the time of purchase. If members change behavior by swiping the card, they would increase their accumulation. Both represent a change in behavior that is favorable to AMRP, since sponsors compensate AMRP based on the number of miles issued, thus increasing revenue to AMRP. While our focus is on the AMRP brand, it is interesting to note that the first behavior, switching purchases to AMRP sponsors, is also favorable to the sponsors, while the second, swiping the card when it ordinarily not swiped, is undesirable to the sponsors. We have no way of distinguishing between the behaviors, but from AMRP's perspective it does not matter, since both increase its revenues.

We have one year of data recording activity on the AMRP social media site. Posting to the site is sporadic, with few posts on most days—the median number of posts per day for the date ranges studied here is only 12 and the third quartile is 119. There are, however, large spikes in activity with a maximum number of posts on a single day of 6,455. The spikes are driven by email promotions of several events/contests. There were three major contests in 2010, two of which will be discussed in this paper. The third shows similar results to the other two, but was substantially more complicated with additional possible confounds.

Figure 1 shows histograms of the number of visitors to the AMRP social media site around the two contests analyzed here. For both we will use the four-week period before the contest as a pre-measure of mile accumulation controlling for heterogeneity across customers, and accumulation in the eight weeks after the contest as the dependent variable. The black down arrows on the top of the plot indicate when emails were sent to members announcing the contest and providing a link on which recipients could click and be brought to the social media site. The red up arrows indicate when AMRP posted announcements

reminders on the community page. The emails are the main driver of participation, since the large spikes in activity come after the email announcements. It is noteworthy that there were very few visits to the social media site before or after the contest period, reducing the risk of other social media confounds.

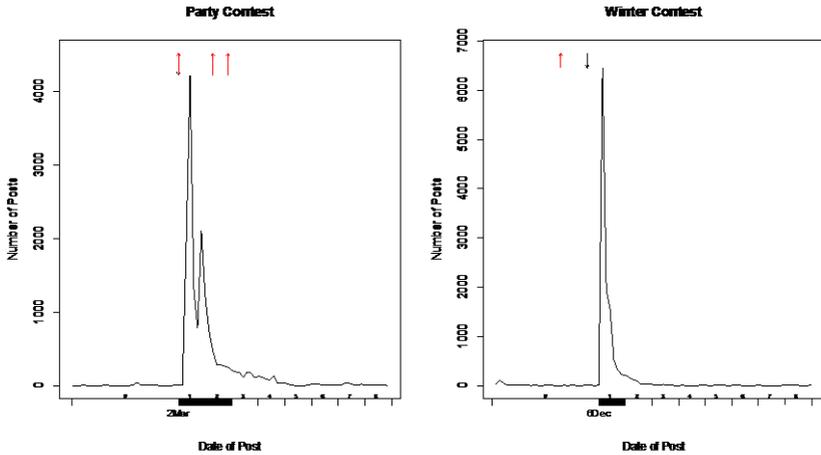


Figure 1: Distribution of the number of posts over time.

The first contest (left panel) is labeled the “Block Party.” On March 2, 2010, AMRP sent an email and posted a message announcing the one-year anniversary “Block Party,” in which members were offered four chances to win 25,000 miles by becoming a member, posting a mileage-collection tip, uploading a picture, or making an “I like this” thumbs up to the community site. In sharing tips consumers are actively elaborating on their engagement with the AMRP. Some example posts include, “Safeway will give you 100 airmiles if you sign up for email direct”; “I always shop at Safeway, especially on Customer appreciation day to get 10X airmiles & then pay with my AMEX for double the points!!!” This contest gave an opportunity for members to share their personal experience with AMRP or listen to other member’s experiences, which transforms customers from passive audiences to active players and increases engagement with the brand. Contributors are processing the benefit they receive from AMRP, or how to increase accumulation.

The “Winter” contest invited members to “simply share with us what rewards you are redeeming for this winter season and we’ll give you 10 bonus reward miles.” In writing about their plans, contributors are elaborating on a personalized benefit of their relationship with AMRP. They are also actively setting a goal and declaring it in a public forum. We are unable to separate out the different causal explanations—setting a goal, declaring the goal in public,

processing and personalizing the core benefit of the AMRP brand—in this study, but all are part of engaging with a brand in social media.

Responses varied in length, and we will study how the amount of elaboration affects mile accumulation. Some wrote one or two words, e.g., “Digital Camera!” Others wrote several sentences explaining why they wanted a particular reward, e.g., “We redeemed some of our airmiles for WestJet flights for our family of four to go and visit my Mom and Dad on Vancouver Island in the new year [sic]. It has been at least four years since our last visit which our youngest daughter [sic] (now 8) is having trouble remembering. So it will be really nice to see them again and be able to picture their place on the ocean.” All who participated were exposed to the same email and announcement messages from AMRP and given the same reward (10 miles). If the amount of elaboration affects behavior, then we will have stronger evidence that this engagement with the brand is more than a traditional advertising or promotion effect.

There are several possible theoretical explanations for why such participation should affect future behavior. Our analysis attempts to eliminate the history and selection threats to internal validity, and other explanations such as the effect being due to advertising or the reward. One possible explanation is that participants are elaborating on their relationship with the brand and its core benefit (rewards). The elaboration likelihood model (Petty and Cacioppo, 1986) predicts that high elaboration is persuasive in changing attitudes toward the brand, which then increases future behavior. Second, in the case of the Winter contest the participant is articulating a goal. Goal-setting theory (Locke and Latham, 2002) would also predict a change in future behavior. Third, in discussing involvement with the AMRP program and what rewards one has or will receive from it, the consumer is co-creating the brand and its benefits (Pralhad and Ramaswamy, 2004). A fourth explanation is that the effect is due to engagement (Brodie et al., 2010). Engagement is a broad concept that is difficult to define precisely, and some definitions subsume the other three explanations mentioned before. It should be emphasized that these explanations are not mutually-exclusive, alternative explanations. All of them are plausible mechanisms for how such participation can affect future behavior.

3 Methods

We analyze the two contests separately. AMRP provided the mile accumulation history for a stratified sample of 143,000 members, with all participants and a random sample of non-participants. Black intervals on the horizontal axis of Figure 1 show *study periods*, defining the main independent variable: for a contest, members who posted at least once during the study period are in the treatment group while others are in the control group. Study periods were selected to include most of the posting activities around a contest. The study period for the Block Party contest was two weeks and one week for the Winter contest, reflect-

ing the fact that most posts for the Winter contest came within a week, while most posts for the Block Party came over a two-week period of time. Pre-measures of behavior are computed from the four-week period, called the *pre period* “0,” immediately preceding each study period. The pre measures are averaged over the four weeks to give average miles accumulated per week.

We study how long participation affects behavior in the future by having eight additional *post periods* labeled periods 1, 2, ..., 8. Period lengths were round weeks because we suspect that accumulation behavior is at least somewhat periodic, with, for example, some households doing their grocery shopping every Saturday, etc. The dependent variables are y_{it} , the number of miles accumulated by customer i during week $t=0, 1, \dots, 8$. Let y_{i0} be the pre measure, number of miles *per week* for customer i in the period before the contest.

Within each contest, we will analyze the effects of a hierarchy of five different “actions” (independent variables) sequentially. The first action ($j=1$) is AMRP sending a member an email. We will compare behaviors in the study and post periods between those who receive emails and those who do not, after controlling for behavior in the pre period. The second action ($j=2$) is opening the email: among only those who received an email, we will compare those who opened it with those who did not. The third action ($j=3$) is clicking: among only those who opened the email, we will compare those who clicked on a link in the email bringing them to the AMRP website with those who did not click. The fourth action ($j=4$), which is part of the main focus of this paper, is participating: among those who clicked on the email, we compare those who participate by writing something on the AMRP website with those who do not. The fifth action, for the Winter contest only, is elaboration ($j=5$): among those who participated, we study the effect of the amount of elaboration. Let $x_{ij} = 0$ or 1 be the value of independent dummy variable j for member i , where $j=0$ is for being a member ($x_{i0}=1$, for all i), $j=1$ is for receiving an email, $j=2$ is for opening the email, $j=3$ is for clicking on the email, and $j=4$ is for participating in the contest. We will dichotomize elaboration, splitting at the median of 10 words. Using only the observations where $x_{i,j-1}=1$, we study the effect of x_{ij} on y_{it} , controlling for y_{i0} ($j=1, 2, 3, 4$ and $t=1, 2, \dots, 8$); for example, we study the effect of participation (x_{i4}) using only those who clicked on the email ($x_{i3}=1$).

The main focus of this study will be on participation in the contest ($j=4$) and elaboration ($j=5$), although the comments in this paragraph on validity apply to all four actions. Participants form the “treatment” group and non-participants are the control group. The control group attempts to address threats to internal validity such as history. Pre-measures account for observed customer heterogeneity. Although members self-select into participating in the contests, this before-after-with-control-quasi-experimental design is robust to most threats to internal validity (Churchill and Iacobucci, 2008), since there are two separate bases for comparison, the pre measures and control group.

In summary, the dependent variables are the number of miles accumulated in each of the eight weeks that follow a contest. We will run separate analyses for each of the eight weeks. There are two independent variables: whether or not the customer took the action j being studied (x_{ij}) e.g., participated in the contest, and pre-contest mile accumulation (y_{i0}). The focus of this study is participation ($j=4$) and elaboration ($j=5$) and we therefore devote most of our discussion to it. The other three actions, receiving an email promotion, opening it, and clicking on it, are of secondary importance because these are traditional ad effects that have been studied for many years, while the other two are examples of engagement.

4 Results

Our discussion of the results will be divided into two parts, and an additional part for the Winter contest. We must propose a statistical model incorporating the two independent variables (pre measure and participation). This task is complicated by the possibility of interactions between them and nonlinearities. The first part of our discussion will be devoted to an exploration of some graphs to help us propose a suitable model. Next, we use the model to study the effects of all four the actions on future behavior. For the Winter contest only, we will examine the effects of the amount elaboration among participants.

4.1 Exploratory data analysis

To explore the data we assign members to three groups based on their behavior in the pre period: low members accumulated 0-10 miles in the pre period, medium members accumulated 11-45 miles, and high members accumulated between 46-500 miles. Each group constitutes about a third of the participants. One can think of these groups as customer segments, or as experimental blocks that account for heterogeneity among experimental units. Our final model below will account for this observed heterogeneity at the individual, rather than block level, but we begin our exploration of the data with discrete blocks since the continuous model is more difficult to understand.

Table 1: Sample sizes used to compute the means for the party contest and open/click/participate rates

Action	Block Party		Winter	
	No	Yes	No	Yes
Email	21,299	97,846	51,892	70,435
Open	47,019	50,827	29,757	40,678
Click	23,474	27,353	28,119	12,559
Participate	21,726	5,627	10,454	2,105
Long elaboration			937	1,167

We begin by examining for the Winter contest the mean number of miles accumulated by period number, member segment and whether the member took a particular action. The Block Party produces similar results. Sample sizes are provided in Table 1 for those who took the action and those who did not. For example, 97,846 were sent the Block Party email and we have a sample of 21,299 who did not receive the email. Of the 97,846 who received it, 50,827 opened it and 47,019 did not. All of the sample sizes are large. The estimates of the individual means in our plot and the Poisson regression coefficients in the next section will have small standard errors.

For each block-treatment combination the mean¹ number of miles is plotted against time in the left panel of Figure 2 and the natural logarithms of the means are shown in the right panel. The low-member block is shown by black lines with circles, the medium block by red lines with triangles and the high block by green lines with plus signs. The dashed lines show those who did the action and the solid line shows those who did not.

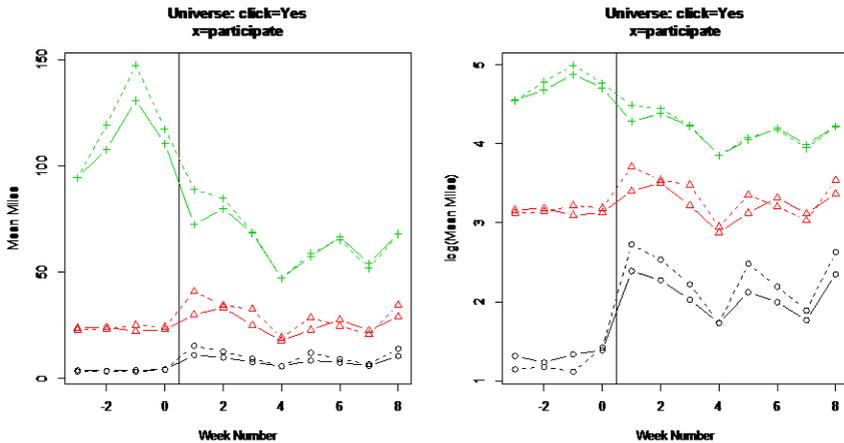


Figure 2: Mean miles by period number for different member segments (blocks) and exposure to treatment (x) for party contest.

The effects of participating on mean miles without logging are shown in the left panel. The difference between the solid and dashed lines shows the absolute

¹ There were outliers in the data. All mile amounts less than 0 or greater than 500 were omitted from the analysis. Less than 1% of the data had negative miles, which probably indicate that the member returned something purchased earlier. Less than 1% of the data had values greater than 500 miles. Recall that each mile equals about 30 CAD and so earning more than 500 miles implies spending more than 15,000 CAD in a one-week period. These are probably businesses or individuals making an unusual rare purchase. Natural logs are used so that the plots will match the Poisson models estimated later.

magnitude of the effect. We begin with the lowest tier of customers accumulating 10 or fewer miles per week and shown with black circles. The black horizontal line between weeks 0 and 1 indicates the announcement. Prior to the line members in this block had low average accumulation (near 0) and there was little difference between those who participate and those who did not, suggesting that there is no selection bias. After the contest, the dashed line is systematically higher than the solid line, indicating that those who participate increase their accumulation over the control group. In weeks 4 and 7 there is little difference between the groups, but in other weeks the differences are sizable, suggesting the effects of engagement are long lasting.

For those in the middle block shown with red triangles, the story is similar: there is little difference between the lines before the contest, but after those who engaged in the contest have systematically higher accumulation in many of the weeks. The effect lasts a long time into the future. The story is different for the best customers, shown by green plus signs. Those who ultimately engage have systematically higher accumulation before the contest—a selection bias. Also, both lines have substantially more variation, suggesting there are other factors affecting accumulation, i.e., history. Again, pre measures at the individual level address the selection bias, and the natural control group addresses the history. Thus, while there is self-selection into the treatment group, our design has substantial controls over confounds. The effect of engagement in the contest is short among the best customers, with a large difference in week 1, a smaller difference in week 2, and no difference thereafter. A possible explanation is that the most engaged customers are already using the AMPR card wherever they can, and so increasing accumulation will be difficult, since consumers are unlikely to increase their consumption in these categories to earn more miles. There are more opportunities to increase accumulation with customers in the other two blocks who, for example, could switch gas stations or start swiping the card.

The logs of the means are plotted in the right plot of Figure 2 and show a similar, but slightly different story. The differences for the low and medium block are more evident. The difference between the solid and dashed lines indicate the log ratio of the means because $\log(\mu_1) - \log(\mu_0) = \log(\mu_1/\mu_0)$, where μ_1 a mean for the treatment group (dashed line) and μ_0 is a mean for the "control group (solid line). Thus, the difference indicates the relative (or multiplicative) increase due to the action.

The plots show two interactions that must be accounted for in our model. First, the effect of engagement varies across customers. The effects are smaller for best customers than for weaker customers, and so the effect of the treatment should interact with the pre measure. Second, there is an interaction between treatment and time, with effects diminishing for best customers as the time since the contest increases.

4.2 Poisson models with interactions

We now propose a model that accounts for heterogeneity at the individual level and accommodates the interactions identified in the plots. We will estimate separate Poisson regression models predicting y_{it} ($t=1, \dots, 8$) for action j using only observations where $x_{i,j-1}=1$:

$$\log(y_{it}) = \beta_0 + \log(y_{i0} + 1)\beta_1 + x_{ij}\beta_2 + \log(y_{i0} + 1) x_{ij}\beta_3$$

This model includes an interaction term between the pre measure and treatment. We can understand the model better by writing out the fitted model for the different treatment values:

$$\log(y_{it}) = \begin{cases} \beta_0 + \log(y_{i0} + 1)\beta_1, & x_{ij} = 0 \\ (\beta_0 + \beta_2) + \log(y_{i0} + 1)(\beta_1 + \beta_3), & x_{ij} = 1 \end{cases}$$

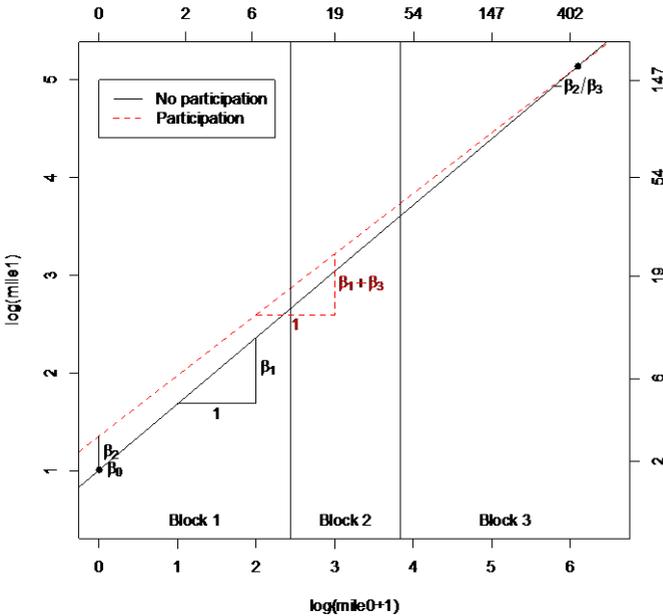


Figure 3: Illustration of Poisson model with interactions.

The model is illustrated in Figure 3. The top line shows the model for those who do not participate ($x_{ij}=0$), where two of the terms drop out. The relationship between log mile accumulation in the future period and the log pre measure is a line with intercept β_0 and slope β_1 . For those who participate ($x_{ij}=1$), the relationship is also linear (bottom line). The intercept is $(\beta_0 + \beta_2)$ and the slope is now $(\beta_1 + \beta_3)$. Thus, β_2 measures the change in the intercept between the treat-

ment and control groups, and $\beta_2 > 0$ implies that those with low accumulation in pre period who participate have higher accumulation than those who do not. Likewise, $\beta_2 = 0$ implies there is no difference in intercepts. Parameter β_3 measures the difference in slopes. We can solve for the intersection of the two lines and find $x = -\beta_2 / \beta_3$.

Table 2: Parameter Estimates

Time (t)	Intercept: (β_0)	Log(y_0): (β_1)	x: (β_2)	$x * \log(y_0)$: (β_3)
Block Party Participation (j=4)				
1 (Mar 2-8)	1.0137	0.6770	0.3475	-0.0570
2 (Mar 9-15)	1.0041	0.6886	0.3604	-0.0581
3 (Mar 16-22)	0.9907	0.6598	0.1108	-0.0123
4 (Mar 23-29)	0.9375	0.6297	0.2989	-0.0522
5 (Mar 30-Apr 5)	1.1899	0.5517	0.2244	-0.0460
6 (Apr 6-12)	1.2665	0.6398	0.3363	-0.0652
7 (Apr 13-19)	1.2625	0.6344	0.2663	-0.0503
8 (Apr 20-26)	1.2534	0.6425	0.1806	-0.0384
Std Errors	≈.0042	≈.0011	≈.0088	≈.0022
Winter Participation (j=4)				
1 (Dec 7-13)	1.6131	0.5714	0.4319	-0.0493
2 (Dec 14-20)	1.5305	0.6126	0.2395	-0.0459
3 (Dec 21-27)	1.1621	0.6534	0.5434	-0.1156
4 (Dec 28-Jan 3)	0.8723	0.6368	0.2567	-0.0633
5 (Jan 4-10)	1.3384	0.5762	0.5842	-0.1199
6 (Jan 11-17)	1.2198	0.6421	0.1349	-0.0456
7 (Jan 18-24)	0.9950	0.6459	0.2226	-0.0706
8 (Jan 25-31)	1.5859	0.5657	0.3570	-0.0739
Std Errors	≈.0053	≈.0015	≈.0135	≈.0033
Winter Elaboration (j=5)				
1 (Dec 7-13)	1.9627	0.5409	0.0058	-0.0013
2 (Dec 14-20)	1.5195	0.6275	0.0174	-0.0042
3 (Dec 21-27)	1.5860	0.5840	0.0083	-0.0031
4 (Dec 28-Jan 3)	1.0600	0.5800	0.0048	-0.0005
5 (Jan 4-10)	1.7345	0.4881	0.0131	-0.0023
6 (Jan 11-17)	1.4548	0.5309	-0.0065	0.0041
7 (Jan 18-24)	1.1593	0.6078	0.0041	-0.0022
8 (Jan 25-31)	1.6747	0.5578	0.0184	-0.0045
Std Errors	≈.0196	≈.0055	≈.0011	≈.0002

Parameter estimates are provided in Table 2 for participation and elaboration. Estimates from the first three actions have been omitted, since they are not about engagement, the central focus of this article. With such large sample sizes all *P*-values, including those from the first three actions, are very small, indicat-

ing that all parameters are significantly different from 0. Consider the estimates for participation ($j=4$) in the Winter contest during period 1. The estimated lines are shown in Figure 3, where the solid line is for those who did not participate and the dashed line is for those who did. The effect of participation is greatest for those who were inactive and decreases as the accumulation of miles in the base period increases.

The bottom rows show the effect of high elaboration (> 10 words) for those who participated. The effects of elaboration (β_2) are substantially smaller than those for participation, but significantly different from 0. There is a similar interaction effect ($\beta_3 < 0$), where the best customers who are already using the card wherever they can have less opportunity to increase accumulation. Those who have higher elaboration accumulate more.

In both contests and all eight future periods $\beta_2 > 0$, and so the effect of participation is positive for those with no accumulation in the base period. Likewise, across contests and future periods $\beta_3 < 0$, and so the participation effect diminishes as base-period accumulation increases.

4.3 Estimating ROI

The ROI of a contest can be estimated by evaluating this model for each action (j) and customer both with the action ($x_{ij}=1$) and without ($x_{ij}=0$). The difference in estimated accumulation is the return on a particular action. Let y_{ijt}^* be the estimated mile accumulation of customer i during period t assuming action j and let y_{ijt} be the expected accumulation without action j . For example, when $j=1$ (email) $y_{ijt}^* - y_{ijt}$ gives the expected return for receiving the email. The overall change in miles issued due to all actions in a contest can be estimated by summing this over customers, actions and time periods:

$$\Delta y = \sum_i \sum_{t=1}^T \sum_{j=1}^5 (y_{ijt}^* - y_{ijt})_{x_{ij}=1}$$

where $(a)_b$ equals a when b is true and 0 when b is false. The expected mile accumulations can be computed by computing the exponent of the log miles with and without action j :

$$y_{ijt} = e^{\beta_{0jt}}(y_{i0} + 1)^{\beta_{1jt}} \text{ and } y_{ijt}^* = e^{\beta_{0jt} + \beta_{2jt}}(y_{i0} + 1)^{\beta_{1jt} + \beta_{4jt}}$$

The difference, which can be substituted into the above expression, is thus

$$y_{ijt}^* - y_{ijt} = e^{\beta_{0jt}}(y_{i0} + 1)^{\beta_{1jt}} [e^{\beta_{2jt}}(y_{i0} + 1)^{\beta_{4jt}} - 1]$$

We multiply the overall change (Δy) by the net value of a mile (revenue at issuance minus the projected cost of redemption) and subtract the cost of the contest for the ROI.

5 Conclusions and General Discussion

We have examined two social media contests and shown that those who participate consistently have significantly higher accumulation of miles during and after the contest for eight weeks. While the tables of parameter estimates have been omitted from this chapter, the data also show that those who received an email, opened it, or clicked on it also increased accumulation. Among those who participated in the Winter contest, those who elaborated more on their goal increased accumulation. There were interactions with the pre measure of behavior (mile accumulation), with the effect size decreasing as the pre measure increased. This is likely due to the best customers, who are already using the card wherever they can, not being able to increase accumulation without increasing their consumption. Our models enable the calculation of ROI.

The first three actions (receiving an email, opening it, and clicking on it) can be viewed as traditional advertising effects, and there is nothing new in finding that exposure to an advertising message affects behaviors. It is our examination of the last two actions, participation and elaboration, that are the main contribution of this chapter. Among all people who were exposed to the message, opened it and clicked on it, we find that those who engaged by contributing content increased their future behavior further.

One could argue that this effect is rather due to the incentive that participants received (10 miles in the Winter contest and the chance of winning 25,000 miles in the Block Party contest), but we attempt to rebut this argument by examining elaboration. If those who participate increase accumulation behavior only because they received an award, then elaboration should have no effect, since all participants received the same reward regardless of the amount of elaboration. Among those who participated, however, the amount of elaboration affects future accumulation. Thus, the change in accumulation must be the consequence of some causal factor beyond the 10 miles incentive and exposure to advertising.

We are unable to isolate the cause beyond this elaboration on the brand and there are several possible explanations. We identified several possible causal mechanisms—the elaboration likelihood model, goal setting, co-creation and engagement. Further research is necessary and we now discuss important research questions unanswered by our data. First, the winter contest required the participant to declare a goal on the social media site, while the Block Party did not. The fact that we observed an increase in future behavior in both contests suggests that goal setting is not the only causal mechanism—it may contribute to the effectiveness of the Winter contest, but other explanations are required to explain the Block Party effect. Second, as with all UGC distributed in social media, the declaration of the goal occurs in a public, shared forum. If goal setting is part of the causal mix, to what extent is the public declaration important over setting a goal in private? For example, if AMRP members were asked to write what they would “redeem miles for in winter” on a piece of paper without

showing it to anyone, would the change in future behavior be as great as declaring the goal in public? Such questions evaluate a core attribute of social media.

There are other questions about the nature of engagement. How can we classify engagement into different types and do the different types have different effects on future behavior? For example, one split that has been proposed is utilitarian versus hedonic (e.g., Cotte, et al., 2006; Calder et al., 2009). Should the organization prompt utilitarian engagement and elaboration such as share a tip on collecting miles, or should it prompt more hedonic UGC such as sharing a picture or story about enjoying a reward? The answer should depend a combination of which will generate the most responses and which will increase future behaviors. The main hypothesis posited by this article is that social media that prompts elaboration/co-creation around the brand—engagement, by some definitions—is the cause of the change in future behavior, but Baird and Paranis (2012) find that among a large set of reasons for visiting social media, interacting with brands is one of the least-checked reasons. Is it easier to attract participation when the prompt is not brand related, and are contests where the task required for entry is aligned with the brand more effective in changing future behavior than those that are unrelated? Marketers could find themselves in a difficult position, where interactions that are not focused on the brand have no effect on future purchase behavior, while consumers are not interested in participating in brand-focused activities. Answering such questions will provide guidance in designing future contest.

This study has limitations and raises other questions. The quasi-experimental design used here, with pre-measures and a control group, is fairly robust to threats to internal validity, but it would be desirable to run true experiments where participation is manipulated, and to isolate the cause. We have been unable to study the effect of reading, without contributing, UGC. Does reading UGC written by another customer change purchase behavior? Future research should address this issue to present a complete picture of how contests work for both active (i.e., creating messages) and less active (i.e., reading other people's messages) forms of participation.

Allowing consumers to co-create brand meaning and benefits would seem to be a more effective way to increase purchase behavior than simply exposing consumers to ad messages, but it also creates new challenges and risks. The meanings that some consumers create may not be "on strategy, in that they differ from what the organization intends for consumers to think about its brand. In some cases these alternative interpretations of the brand may be opportunities for the firm to expand the meaning of its brand. The firm may not have realized that this alternative meaning is the reason why a large number of consumers are loyal. It is also possible, however, to envisage situations where the alternative interpretations cause the brand to lose focus and confuse other customers who read them. Famous examples of such user-generated content discussed by

Deighton (2008) are the Dove Cream Oil Body Wash entries by "Biker Dave" and "Bed Vlog." Such ads are still available on YouTube and do not communicate the intended brand meaning. An important opportunity for future research is in devising communication strategies for responding to such user-generated content.

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Who “Likes” Brands? Exploring the Characteristics of Brand Fans on Facebook

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1 Introduction

Using online social networks (OSNs) is becoming more and more common in all population groups. Not surprisingly, many marketers intend to be present in these networks in the future (e.g., Busby et al., 2010). But, as several studies among practitioners reveal, more general knowledge is needed to plan marketing engagements in OSNs. In the academic marketing literature a need for more detailed research on OSNs has been identified as well (e.g., Burmann, 2010). Practitioners and scholars alike particularly seek better insights into determinants of brand related behaviors on OSNs.

Descriptive studies from market research institutes reveal that nearly one hundred percent of the younger population in Europe has a private Facebook account (e.g., DDB, 2010). Thus, personality characteristics have little explanatory power concerning whether people use networks or not (e.g., Ross, Orr, Sisic, Arseneault, Simmering and Orr, 2009). However, there is a greater variance in how users engage in Facebook, for instance, which specific functions they use (DDB, 2010). As personality is a “*highly relevant factor in determining behavior on the Internet*” (Amichai-Hamburger, 2002), several forms of private usage behavior in OSNs can be explained by the user’s personality (e.g., Amichai-Hamburger, Wainapel and Fox, 2002; Ryan and Xenos, 2011). Profound knowledge about the relationship between personal characteristics and brand-related usage behavior is important for marketers, for example to optimize their communications. While several studies have examined motivations for the usage of brand related social media in general (e.g., Muntinga, Moorman and Smit, 2011), to the best of our knowledge, not much research on the effects of personality traits on brand related behavior in OSNs is available. Hence, the scholarly call for such research remains unanswered (Muntinga, Moorman and Smit, 2011). Similar, many descriptive studies have shown that younger people use OSNs more intensive than older people. To the best of our knowledge, the relationship between socio demographic variables and brand related online behavior is also widely unexplored.

Our purpose is to fill this research gap. We first review the literature investigating the influence of individual differences variables on consumer behavior,

especially in OSNs. We then develop an exploratory model. The model consists of three forms of brand related activities in OSNs as outcomes and several individual differences variables as its antecedents. Additionally, we investigate several moderating effects. We then tested this model for users of brand pages on Facebook based on a sample of 256 respondents using multiple regression analyses and correlation analyses. Results and their implications are discussed as well as limitations and directions for future research.

2 Theory

This research contributes to the existing research in social media marketing and personality research. In this chapter we review the literature on (1) the human personality, (2) user activities in OSNs and (3) the relationship between personal variables and OSNs-usage behavior.

2.1 *The “Big Five” Personality Traits*

Research in human personality is a major area of inquiry for many psychologists. Especially trait theories, gained increased attention in marketing research. These theories aim at the description of human personality on continuous dimensions. Based on the research from Allport and Odbert (1936) on lexical approaches, five broad dimensions of human personality have been developed, namely openness to experience, conscientiousness, extraversion, agreeableness and neuroticism (John, 2001; Costa and McCrae, 1992). Those five dimensions were replicated in numerous studies in several countries, cultures and demographics (John, 2001), and prior research revealed their relevance in predicting social interactions. Table 1 summarizes the characteristics of the “Big Five” personality traits.

Scholars in psychology have conducted numerous studies analyzing direct, indirect or moderating effects of personality traits on several outcomes. In marketing research, only few studies focused on personality traits as antecedents of consumer behavior (e.g., Mulyanegara, Tsarenko and Anderson, 2007), although the research gap has often been pointed out.

Table 1: Description of the “Big Five Personality Traits”

<i>Dimension</i>	<i>Description</i>
Openness to Experience	People who score high on openness to experience display intellectual curiosity, creativity or flexible thinking, and sensitiveness to beauty. People who score low, however, tend to have more traditional interests and are less creative (Digman and Takemoto-Chock, 1981; Digman, 1996; Costa and McCrae, 1992). Openness to experience is more likely to be associated with trying out new methods of communication, e.g., via social networks (Butt and Philipps, 2008; Correa, Hinsley and De Zúñiga, 2010).
Conscientiousness	Conscientiousness contains the degree of organization, motivation and persistence in goal-directed behavior (Costa and McCrae, 1992). People who score high on conscientiousness are in general more hard working, self-disciplined and more careful than low-scorers. Conscientiousness was found to be negatively related to the usage intensity of several forms of computer mediated communication (Butt and Philipps, 2008).
Extraversion	People who score high on extraversion are sociable, person-orientated, talkative, optimistic, fun-loving and affectionate (Costa and McCrae, 1992). The evidence of the existence of a relationship between extraversion and social media use is not clear (e.g., Ross et al., 2009; in contrast to Correa, Hinsley and De Zúñiga, 2010, who found no relationship).
Agreeableness	Agreeableness is a personality trait describing the quality of one’s interpersonal orientation. High scoring people are soft-hearted, helpful and trusting (Costa and McCrae, 1992).
Neuroticism	People who score low on neuroticism are in general calm and unemotional whereas high-scorers are worrying, nervous and emotional (Costa and McCrae, 1992).

2.2 *Social Media Marketing and Consumer Behavior in Social Media*

OSNs are getting more and more popular for consumers, for example to spend their time, to communicate with friends or to create and publish contents about anything, including brands (Muntinga, Moorman and Smit, 2011). Hence, those virtual places also become more popular for companies to promote their brands there.

According to Rauschnabel, Goebbel, Sasse and Rippe (2012), all companies should integrate social media in their business – at least in a passive way (e. g., by educating their employees, developing guidelines, or to monitor what users post about a company). When companies decide to use social media proactively, a clear strategy is needed. Rauschnabel, Goebbel, Sasse and Rippe (2012) point

out, that a clear understanding of social media platforms users, and their motives is necessary to develop a proactive social media strategy.

Today, especially online social networks (OSNs) gain increased popularity. Facebook is one of the most relevant OSNs and gives registered users several usage options. For marketers, Facebook provides several opportunities: Companies can build up Facebook shops, place ads as well as brand related applications and launch “*brand pages*” (syn: fanpage; DDB, 2010). Those brand pages can be described as company managed profiles (which are similar to websites) within Facebook.¹ Brand pages have a high relevance for brand communication (Fox et al., 2010). Users can connect their profiles with a fan page by clicking the “Like”-button and thus become a “fan” of a brand. Many brands have more than several million fans.

Those fans receive all page updates on the newsfeed and can interact on those brand pages (Rauschnabel, Praxmarer and Ivens, 2012). As marketing activities in OSNs offer several opportunities for fans to interact with brands, Muntinga, Moorman, and Smit (2011) developed a general and not network-specific three dimensional approach to classify those “consumers” online brand related activities” (COBRAs): Consuming, contributing and creating (see table 2).

Table 2: COBRAs and example Items

Low Level of Engagement Consuming	Contributing	High Level of Engagement Creating
<i>← Participating without actively contributing, e.g., watching videos or reading other peoples’ reviews.</i>	<i>Middle level of brand-related activeness, e.g., commenting on posts or conversations on brand pages.</i>	<i>Ultimate level of brand related behavior, e.g., posting product reviews or brand related media.</i>
Combing through brand pages	“Liking” pictures, videos or postings	Commenting pictures, videos or postings
Reading articles and news	Sharing Postings, Pictures, Videos	Posting Links on the fan page
Watching pictures	Participating in discussions	Asking questions (public)
Watching videos	Joining surveys	Creating own postings
Searching Product Information	Evaluating products	Posting own designed brand-pictures
Comparing prices/Shopping	Applying for a job	Creating Events
...

Referring to Muntinga, Moorman, and Smit (2011), Rauschnabel, Ivens and Mau (2012)

¹ There are also many “unofficial” pages on Facebook with a brand focus, which are hosted by users. For example beside the official pages hosted by Red Bull, there numerous other Red Bull related pages hosted by users (e. g., “Wodka RedBull” or “Drinking Redbull and wondering where the f**** are my wings”). We do not focus on these pages in this paper.

Scholars from several disciplines have analyzed the effects of personality constructs on private behavior on OSNs (e.g., Correa, Hinsley and De Zúñiga, 2010; Ross et al., 2009; Butt and Philipps, 2008) – but only few in a marketing context (Pagani, Hofacker, and Goldsmith 2011; Rauschnabel, Ivens and Mau, 2012). However, those studies indicated mainly weak effects and often lead to contradictory findings – probably due to different samples and methodologies.

Our contribution to the existing literature is that we (1) focus on brand related activities and (2) not on global usage measures. Additionally, we (3) explore several moderators and (4) socio-demographic variables.

2.3 *Personal Variables and Social Media use*

Numerous studies have analyzed the relationship between personal variables and social media use (e. g., Butt and Philipps, 2008; Correa, Hinsley and De Zúñiga, 2010). Until now, only very few studies have focused on brand related content (e. g., Rauschnabel, Ivens and Mau, 2012), while many other scholars from different disciplines (e. g., communication science, business informatics, or HR) focused on private usage behavior. However, the results of those studies are mostly contradictory, probably due to different samples, research methods, or the time when data was collected (e. g., it stands to reason that the personality profiles from Facebook's early adopters in 2006 might differ from those of the majority of users in 2013). However, to take it in a nutshell, especially extraversion and neuroticism were found to predict several forms of usage characteristics on Facebook.

Furthermore, many other researchers studied the relationship between socio-demographic variables and how individuals use social media. The main finding is that females and younger people tend to be more actively using social media. However, there is still a lack on how socio-demographics are related to the use of branded content in social media.

3 **Exploratory Model and Methodology**

Similar to Rauschnabel, Ivens and Mau (2012), we investigate the effect of personal characteristics on brand related behavior on brand pages. Therefore, we also use the big five personality dimensions and the COBRA-Typology developed by Muntinga, Moorman and Smit (2011). However, this study differs as it (1) focuses on a specific brand page and not on brand pages in general. (2) Furthermore, our model includes the attitude towards the brand page. Bauer, Toma and Fischer (2012) reveal the managerial importance of this construct, as it may affect several important behavioral outcomes. However, to the best of our knowledge, no study has analyzed the effects of the attitude towards a brand

page and the behavior of users on brand pages yet. We also investigate (3) the effects of socio-demographic variables. Socio-demographic variables are also important from a managerial perspective, as marketers can use those variables for targeting Facebook ads (for example, they can place ads on Facebook which are only presented to male users from a specific region which are older than 35 years).

Our model consists of several constructs extracted from the extant literature. For the measurement, 7 point likert scales were used (1 = totally disagree...7 = totally agree). All reliability checks revealed acceptable values.

Independent Variables: The “Big Five” Personality traits were measured by using the German BFI-25-scale (Gerlitz and Schupp, 2005) with five items for each dimension. The scale has been used in related studies and shows a high reliability. Furthermore, attitude towards the brand page was measured with three items (negative...positive; unfavorable...favorable; bad...good).

Dependent Variables: We adopted the COBRA-Typology from Muntinga, Moorman, and Smit (2011). Consuming was measured with four items (searching for product information; reading postings about products, watching video/pictures; reading news), contributing with three (sharing pictures/videos/postings; evaluating products; taking part in discussions; “liking” pictures/videos/postings) and creating with 5 (posting questions; creating events; posting own videos/pictures/postings; writing reviews; posting brand related articles). Respondents were asked how often they use the activities (1=never to 7=very often). Means were calculated for each dimension based on the corresponding activities.

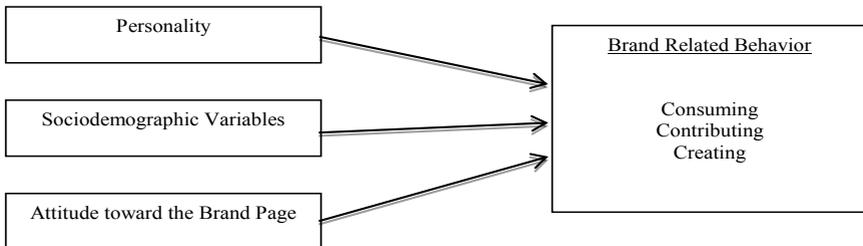


Figure 1: Exploratory Model

Figure 1 visualizes the proposed model. The descriptive statistics of our model are reported in table 3. An overview about the correlations between all constructs is provided in table 4.

Table 3: Descriptive Statistics

Construct/Trait	No. of items	Mean (SD)
Openness to Experience (O)	5	5.25 (1.24)
Conscientiousness (C)	5	5.60 (0.87)
Extraversion (E)	5	2.88 (1.07)
Agreeableness (A)	5	3.99 (1.27)
Neuroticism (N)	5	2.83 (0.86)
COBRAs		
Consuming	4	4.31 (1.37)
Contributing	3	3.40 (1.66)
Creating	5	2.06 (1.47)

Table 4: Correlations

	Cons	Contr.	Creat.	O	C	E	A	N	Att.	Age
Consuming	-									
Contributing	.597**	-								
Creating	.334**	.602**	-							
Openness	.184**	.219**	.180**	-						
Conscientiousness	.137*	.097	.050	.228**	-					
Extraversion	-.071	-.061	-.047	-	-	-				
Agreeableness	-.057	.038	-.012	-.064	-	.224**	-			
Neuroticism	-.034	.002	.014	-.159*	-	.316**	.250**	-		
Att. tow. the brand	.221**	.213**	.128*	.151*	.199**	-.086	-.116 ^T	-.160*	-	
Age	.055	.256**	.269**	.236**	.168**	-.010	.002	.044	-.056	-
Gender (0=male, 1=female)	-.010	-.142*	-.136*	.051	.132*	-.041	-.066	-.049	-.034	.025

Note: Pearson correlations; t-tests (two-tailed) with **: p<1%; *: p<5%; ^T: p<10%.

4 Research Design and Results

Data was collected in summer 2012 using a German online questionnaire spread over Facebook (for example, we published the link on several brand pages, but also on non-brand related discussion groups) and e-mail newsletters. We only included those respondents in our analysis who were at least a fan of one brand. The average age of the 256 brand fans was 26.9 years (SD = 7.68; min = 15, max = 58) and 53.5 % were students. With 46.5%, men are slightly underrepresented in our sample.

As we identified correlations between our independent variables (see table 4), the results from the regression analyses might be threatened by multicollinearity. Hence, we calculated VIF-statistics. Since all of the VIF values were below 1.285, we assume no multicollinearity concerns. The results of the regression analyses are presented in table 5.

Table 5: Results from regression analyses

	<i>Consuming</i>	<i>Contributing</i>	<i>Creating</i>
Gender (0=male)	-.025	-.149*	-.143*
Age	.017	.231**	.254**
Attitude Brand	.179**	.198**	.121 ^T
Openness	.141*	.138*	.113 ^T
Conscientiousness	.079	.026	-.021
Extraversion	-.005	-.029	-.022
Agreeableness	-.016	.066	-.006
Neuroticism	.045	.039	.035
R² (ANOVA)	.075*	.159**	.124**

Note: T-Tests for each predictor: **: p < 1%; *: p < 5%; T: p < 10%; values represent standardized betas.

Consuming: Our model explains about 8 % of the variance within the passive usage behavior on their favorite brand page on Facebook. Especially individuals who have a positive attitude towards the brand ($\beta = .179$; $p = .005$) and score high on openness to experiences ($\beta = .141$; $p = .037$) tend to consume content provided on brand pages. All other predictors show p-values above 10 %.

Contributing: Our model explains about 16 % of the variance within the contributing behavior on their favorite brand page on Facebook. The contributing users can be characterized as being older ($\beta = .231$; $p < .001$), having a more positive attitude towards the brand ($\beta = .198$; $p = .001$) and being more open to new experiences ($\beta = .138$; $p = .032$). Furthermore, males contribute stronger on their favorite brand page ($\beta = -.149$; $p = .012$). An additional ANOVA reveals this difference (male: 3.177; female: 2.649; $p = .023$). All other predictors show p-values above 10 %.

Creating: Our model explains about 12 % of the variance in creating behavior. Hence, creators can be described as being older ($\beta = .254$; $p < .001$), having a more positive attitude towards the brand ($\beta = .121$; $p = .052$) and being more open ($\beta = .113$; $p = .085$) than users who engage less in creating-related activities on their favorite brand page. Furthermore, males tend to create content more often on their favorite brand page than females ($\beta = -.143$; $p = .019$; ANOVA: male: 2.277; female: 1.876; $p = .030$). All other predictors show p-values above 10 %.

Additional Analyses: We recalculated the regression equations for the personality variables only and conducted stepwise regressions. The results were quite similar.

Exploration of moderators: In the next step, we explored several moderating effects of personality traits. Therefore, we estimated additional regressions with only the personality traits as independent variables and then tested for moderating effects using multi group analyses. Due to the space restrictions, only selected results are presented.

Gender was found to moderate some of the identified relationships. For example, within the female respondents, openness was found to be related to consuming ($\beta = .210$; $p = .018$), whereas it was not in the male group. Therefore, for males, conscientiousness was found to predict consuming ($\beta = .184$; $p = .073$), but not for females. The effect of openness on contributing was higher within the female respondents' group ($\beta = .246$; $p = .005$) than in the male group ($\beta = .184$; $p = .076$). Similar, for creating, the effect of openness was only found to be related within the female group ($\beta = .249$; $p = .005$) but not within the male group ($\beta = .114$; $p = .270$). Furthermore, the moderating role of age was explored. In general, the effects from openness on COBRAs were stronger for younger consumers than for their older counterparts.

5 General discussion

Our study contributes to the extant literature in several ways, as it is one of the first studies analyzing the characteristics of brand fans. The study leads to several important findings.

Users, who consume brand related content, contribute in brand related activities or even create contents on brand pages on Facebook, can be described as being open to new experiences (e.g., creative, intellectual, innovative). The results differ from private usage behavior (e.g., Schrammel, Köffel and Tscheligi, 2009; Ross et al., 2009), where extraversion is a predictor of usage behavior. In general, brand engagers are older than their inactive counterparts. This is an interesting finding, as social media marketing is often criticized as being only effective for younger consumers. Furthermore, the attitude towards a brand page was found to be related to COBRAs, especially for consuming and contributing.

5.1 Managerial Implications

Our findings lead to several managerial implications: As active users are very open to new experiences, managers should use the enormous potential of creativity and innovativeness. Fans can be integrated into the product development or evaluation. Therefore, an effective internal coordination of departments is necessary (for example, in many companies a brand page is hosted by the com-

munication department, which often works independently from the product development or market research).

Messages which fit with the personality of a respondent are in general evaluated more positively than those messages that do not fit (Moon, 2002). Hence, postings about new products and technologies might fit to an “open” personality and thus might be likely to lead to interactions.

Many companies place ads on Facebook. Therefore, companies can use specific filters to place their messages only for selected users (targeting). Age and gender are variables that all users have to mention in their profiles. Our study implies that male and older users are more likely to become active fans than younger or female users. Hence, when companies want to increase interactivity on their platforms, they should focus their attention on those users.

5.2 *Theoretical Implications*

From a theoretical perspective, our results underline that personality traits are also related to brand related behavior on a specific brand page. Our results are mainly consistent with prior studies in this field (Rauschnabel, Ivens and Mau, 2012), but underline different mechanisms than in predicting private usage behavior on Facebook. Furthermore, the results underline the importance of moderators in personality research. Hence, the strength of the effects measured in personality research is strongly driven by sample characteristics.

5.3 *Limitations*

At the same time, our study has its limitations. First of all, our sample was mainly conducted among students from Germany and is relatively small. Prior research in personality shows several important differences in personalities with respect to demographic variables (e.g., age, culture, education) and differences in general online behavior between countries. Moreover, neither motivations why fans interact with brands were included, nor were characteristics of the corresponding brands. The addition of more brand related constructs (e.g., brand love or emotional brand attachment) could have enhanced the predictive power. We also calculated the three dependent COBRAs by assigning the usage-possibilities manually. However, from a theoretically point of view, the context-based assignment of the items to “consuming”, “contributing”, and “consuming” was plausible.

5.4 *Future Research directions*

Besides focusing on the limitations of this study, future studies should focus on other aspects that were explored in this paper. For example, we identified rela-

tively strong correlations between the COBRA-variables. Using longitudinal data, future studies should address the directions of those effects.

In follow-up-studies, more complex interactions (e.g., between the personality traits, or with other brand related constructs) should be included. We also only focused on the five broad dimensions of personality. However, each of the big five dimensions contains several facets (Costa and McCrae, 1992). Future studies should also focus on single facets. Future studies could also integrate social motives in the analysis, as the personality and motives interact with the prediction of consumer behavior (Winter et al., 1998). Another research direction could be the development of a hierarchical personality model of brand related activities on brand pages (similar to online-shopping model from Bosnjak, Galesic and Tuten, 2007).

6 References

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Webcare as Customer Relationship and Reputation Management? Motives for Negative Electronic Word of Mouth and Their Effect on Webcare Receptiveness

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1 Introduction

Social media enable consumers to easily share satisfying or unsatisfying consumption experiences with a multitude of other consumers. The result is a wealth of electronic word of mouth (eWOM), varying in tone from very positive to very negative. For companies, the circulation of negative eWOM is a source of great concern. Unsatisfactory consumption experiences, which were previously communicated as complaints only to a company representative or a few peers, are now publicly available through negative eWOM, which can seriously damage a company's reputation and sales (e.g., Van Laer and De Ruyter, 2010).

To alleviate the effects of negative eWOM, companies are increasingly providing online remedial responses by means of webcare: "the act of engaging in online interactions with (complaining) consumers, by actively searching the web to address consumer feedback" (Van Noort and Willemsen, 2012, p. 115). These efforts center on the aim to restore or improve customer satisfaction and to limit the potential damage that negative eWOM could have on fellow consumers. The desired outcome is that complainants will stop sending negative eWOM messages and, more favorably, will start to spread positive eWOM about their online encounters with the company.

Although webcare is considered a promising tool in support of customer relationship and reputation management, research suggests that consumers vary in their receptiveness to webcare (Havenstein, 2007; Fournier and Avery, 2011). Hence, an understanding of the factors that enhance webcare receptiveness would help marketers determine how to better harness webcare as a tool for relationship and reputation management. This study aims to explain differences in webcare receptiveness—defined here as the willingness of consumers to receive webcare favorably—by examining consumers' motives for engaging in negative eWOM. Based on the Uses and Gratifications perspective (Blumler and

Katz, 1974), we suggest that consumers differ in their motives for engaging in negative eWOM and that, due to these motives, consumers also differ in webcare receptiveness in terms of webcare desirability, webcare satisfaction, and post-webcare eWOM.

2 Literature review

2.1 *Motives for negative eWOM*

This study employs the Uses & Gratifications perspective (U&G) to gain a better understanding of the motives that drives consumers to voice complaints as negative eWOM. According to U&G, media use is motivated by specific needs and desires and an expectation that those needs and desires will be satisfied by particular types of media and content (for a discussion, see Ruggiero, 2000). U&G thus conceptualizes motives are causes of goal-oriented activity (e.g., Atkinson, 1964); they are cognitive representations of what individuals expect to achieve with the use of media or media content (Wentzel, 2000).

Because U&G assumes an active audience, it is considered as a useful framework for understanding consumers' use of social media, as these media require active participation from its users, especially from those who create content (Ruggiero, 2000). Hence, various studies have employed U&G to explore the possible motives of consumers to create content in social media (e.g., Muntinga, Moorman and Smit, 2011). Along these lines, motives have also been studied as antecedents of online complaint behavior and negative eWOM. These studies suggest three motives that may underlie these behaviors: venting, altruism, and empowerment.

The desire to vent has been found to be the most common motivation underlying complaint behavior, and therefore has been suggested as a motive for negative eWOM (Hong and Lee, 2005; Tuzovic, 2010). Venting unburdens people by allowing them to release or express their feelings (Nyer and Gopinath, 2005). Accordingly, consumers communicate negative feelings to sympathetic others through social media in order to obtain emotional relief for the discontent that they have experienced (Hennig-Thurau et al., 2004).

The literature also identifies altruism as an important motive underlying complaint behavior, and thus negative eWOM (Ward and Ostrom, 2006). When consumers are driven by altruistic motives to complain online, they desire to warn other consumers about unsatisfactory consumption experiences. These consumers are concerned about the welfare of fellow consumers, and they want to spare them the problems that they have encountered with particular products or services.

In addition to venting and altruism, the literature on eWOM suggest empowerment as a potential motive as well (Bronner and De Hoog, 2011; Hennig-Thurau et al., 2004; Muntinga et al., 2011). For empowerment-driven consumers, online complaining is an instrument of power. Aware of the impact that negative eWOM can have for companies, consumers voice their complaints online in order to draw the attention of companies, and enforce redress. The setting (i.e., social media) is believed to work in favor of these consumers. It improves their redress and bargaining power, as the company's interaction with the complaining consumer is observed by many other consumers (Hennig-Thurau et al., 2004). Consumers anticipate that this method of complaining is more effective than complaining through traditional channels (i.e., face-to-face, telephone, e-mail) in order to achieve adequate complaint handling.

2.2 *Webcare as customer relationship and reputation management*

Consumers are likely to differ in their motives for engaging in negative eWOM. Nevertheless, one characteristic that these consumers have in common is that they are dissatisfied about a consumption experience. By engaging in webcare, companies take corrective action by resolving, apologizing, and/or providing compensation for any product or service failure that causes consumers to be dissatisfied. By doing so, companies hope to restore customer satisfaction and prevent customers from abandoning the company for its competitors (Breitsohl, Khammash and Griffiths, 2010; Van Laer and De Ruyter, 2011). As the costs involved with recruiting new customers greatly exceed those associated with retaining current customers (Hart, Heslett and Sasser, 1990), complaint handling through webcare is considered to be of crucial importance for customer relationship management.

Webcare is also believed to support reputation management, as it can limit the potential damage that unsatisfactory consumption experiences could have on consumers other than the complainant alone, when these experiences are voiced in the form of negative eWOM (Lee and Song, 2010; Van Noort and Willemsen, 2012). Against a myriad of positively branded messages propagated by marketers, personal experiences from consumers are considered a valuable source of information in the purchase decision-making process (Willemsen, Neijens, Bronner and De Ridder, 2011). Because of its informational value, as well as its reach, negative eWOM has considerable impact. The literature reports many examples of companies that have suffered massive exit and reputation loss as a result of negative eWOM (e.g., Van Laer and De Ruyter, 2011). Thus, if unresolved, online complaints as voiced through negative eWOM, can have detrimental consequences for a company.

If resolved, online complaints may even work in favor of companies. When webcare resolves complaints to the satisfaction of consumers, companies can

demonstrate that they are responsive to the needs and desires of consumers, thereby enhancing their competitive positions. Moreover, consumers may tell other consumers about their positive online encounters with the company, which could transform the tone of eWOM from negative into positive (Hong and Lee, 2005; Lee and Song, 2010). Thus, as proposed by Breitsohl and colleagues (2010, p. 653), a satisfactory webcare response is “not only crucial in terms of customer retention, but also in the form of increasing corporate reputation and brand equity generated by third-party online consumers who read about the positive complaint resolution.”

Although webcare is considered a valuable tool in support of customer relationship and reputation management, its effects on consumer responses have yet to be demonstrated. Research on the effects of webcare has been limited (Van Noort and Willemsen, 2012), and the relatively few studies that have addressed this topic focus largely on the content of webcare responses and how they affect the reputation of a company. More specifically, these studies investigate the types of webcare responses (e.g., accommodative/defensive response) that are most likely to engender desirable effects for companies (e.g., Lee and Song, 2010; Kerkhof, Beukeboom and Utz, 2010; Van Laer and De Ruyter, 2011).

In addition to determining which type of webcare response is most desirable, companies should also question whether webcare is considered desirable at all. Research suggests that consumers vary in the extent to which they desire companies to intervene in consumer-to-consumer conversations. Indeed, some consumers do desire for companies to respond to the complaints that they express in negative eWOM. As demonstrated in a study by Lee and Song (2010), consumers sometimes even explicitly ask companies to respond. Other consumers, however, do not desire companies to intervene in consumer-to-consumer conversations (e.g., Marwick and boyd, 2010). These consumers interpret a company's webcare intervention as a maneuver intended to gain control over consumer-to-consumer conversations and a violation of consumers' right to be heard and respected. This is reflected in several case studies demonstrating that consumers perceive branded activity in social media, including webcare, as intrusive (e.g., Fournier and Avery, 2011). One such case study describes the public dissatisfaction that was fueled when Walmart used Facebook in a campaign to turn negative eWOM into positive eWOM. One consumer wrote, “Facebook should take the number of negative comments on this page as a note that we don't support [Walmart for] its use of space for social networking. This space is for people talking to other people” (Havenstein, 2007). Webcare, in this case, instigated a spiral of negative effects wherein negative eWOM was followed by even more negative eWOM.

3 Research Questions

The aim of this study is two-fold. First, we aim to gain a better understanding of the motives that drives consumers to engage in negative eWOM. Our literature review demonstrates that altruism, venting, and empowerment are considered potential drivers of negative eWOM. However, no study to date has successfully linked all three motives with eWOM activity. Only altruism has been found to be a significant predictor (Yoo and Gretzel, 2008; Hennig-Thurau et al., 2004).

These findings may be explained by the way motives have been conceptualized in prior research on eWOM. Cutler and Danowski (1980) conceptualized two main categories of motives: content gratifications (i.e., motives related to the communication of message content) or process gratifications (i.e., motives related to the process of being involved in communication). Motives that have been studied in prior research on eWOM behavior fall in the category of process gratifications. Studies within this field focused on consumers' motives for engaging in general eWOM activity, rather than engaging in specific eWOM content (i.e., negative eWOM). Accordingly, these studies have examined altruism, venting, and empowerment as part of a broader set of motives that includes motives for negative and positive eWOM activity.

We assert that venting, altruism and empowerment all emerge as motives for negative eWOM, when negative eWOM is examined independently of positive eWOM. The literature argues that motives for negative eWOM are likely to differ from motives for positive eWOM and that they should therefore be investigated separately (cf. Sundaram, Mitra and Webster, 1998). This is especially important, as positive eWOM outperforms negative eWOM in terms of occurrence (but not terms of impact). Only one third of all eWOM that is posted on social media platforms is critical of any company or product (Jansen, Zhang, Sobel and Chowdury, 2009). Because of the skewed proportion of positive eWOM relative to negative eWOM, altruism may have appeared more important in prior research, as this motive has been shown to be a driver of both positive eWOM (i.e., helping others with the purchase decision process) and negative eWOM (i.e., warning others about unsatisfactory consumption experiences; see Sundaram et al., 1998). Venting and empowerment may have appeared less important, as these motives are characteristic only of negative eWOM (Hennig-Thurau et al., 2004).

Following this line of argument, we conceptualize motives as content gratifications. Consistent with this conceptualization, we examine motives for negative eWOM independently from positive eWOM:

- RQ1. What is the relative importance of venting, altruism, and empowerment as motives for negative eWOM?

Second, we aim to demonstrate that different motivations underlying negative eWOM activity have different effects on consumers' receptiveness to webcare in terms of webcare desirability, webcare satisfaction and post-webcare eWOM activity. With regard to webcare desirability, the literature suggests that some consumers seem to desire for companies to intervene in consumer-to-consumer conversations, while others desire for companies to stay out of consumer-to-consumer conversations. Consumers who are driven by empowerment are likely to desire webcare, as they use negative eWOM as a means to obtain redress. When companies gratify consumers' desire for webcare, consumers are likely to be satisfied with their efforts and to voice such satisfaction in the form of post-webcare eWOM. This assumption is supported by the customer satisfaction literature, in which service-failure recovery efforts have been shown to increase satisfaction with service encounters, in addition to increasing positive word of mouth about the provider of the service encounter (e.g., McCollough, Berry and Yadav 2000; Smith, Bolton and Wagner, 1999).

In contrast, when consumers aim to vent negative emotions associated with unsatisfactory consumption experiences, or aim to warn other consumers about unsatisfactory consumption experiences, a company's webcare response is unwarranted. Webcare interventions in such protest-driven and communal conversations may even be interpreted as defensive and/or interfering behavior. Consumers who are driven to engage in negative eWOM activity for reasons of venting or altruism are therefore less likely to desire webcare, to be satisfied with webcare, and to engage in post-webcare eWOM after receiving webcare. Although we have expectations about the relationship between motives for negative eWOM and webcare receptiveness, neither theory nor empirical research provides sufficient conclusive evidence to pose a hypothesis. We therefore formulate the following research question:

- RQ2. Is webcare receptiveness in terms of (a) webcare desirability, (b) webcare satisfaction, and (c) post-webcare eWOM activity related to consumers' motives for engaging in negative eWOM activity?

4 Assumption Check

Before testing the research questions, we examine the assumption that altruism, venting, and empowerment emerge as motives for negative eWOM activity, when negative eWOM is examined independently of positive eWOM. To this end, we rely on survey data collected in the Netherlands through CASI (Computer Assisted Self-Interviewing) by the market-research company TNS-NIPO (see Bronner and De Hoog, 2011). The data were collected as part of the Continuous Vacation Panel (CVO), which is intended to provide insight into the holiday plans and decision-making processes of consumers. Among CVO panel

members ($n = 3500$), those who had taken summer vacations were asked to complete a questionnaire, which also included items about eWOM in relation to their summer vacations. In all, 3176 valid surveys were received, which translates into a response rate of 91%—far above the average of 51% for panel survey studies in the Netherlands (Van Ossenbruggen, Vonk, Vonk and Willems, 2008). Of the panel members participating in the survey, 439 consumers (14%) indicated that they had engaged in eWOM (male = 43%, $M_{\text{age}} = 47$, $SD_{\text{age}} = 14.73$).

4.1 Measures

The survey included measures of the panel members' eWOM contributions and eWOM activity. With regard to their eWOM contributions, panel members were asked whether the tone of the eWOM that they had posted was positive, neutral, or negative. Consistent with the literature, consumers are generally inclined to speak positively about companies; 69.7% of the consumers had posted positive eWOM, 22.5% had posted neutral eWOM, and 7.8% had posted negative eWOM. As this study intends to test the assumption that venting, empowerment, and altruism differ in importance for positive versus negative eWOM, only those who had engaged in these types of eWOM were retained for analysis.

With regard to their eWOM activity, panel members were asked about their motives for posting the eWOM. More specifically, we used seven statements adapted from Hennig-Thurau and colleagues (2004) to measure venting (e.g., "I posted the eWOM to shake off frustration about the company"), altruism (e.g., "I posted the eWOM to help other consumers with my experiences"), and empowerment (e.g., "I posted the eWOM because companies are more accommodating when I publicize the matter"). On a five-point scale (0 = *not at all*; 5 = *fully*), respondents indicated the extent to which these statements were applicable to them (venting: $\alpha = .80$, $M = 1.92$, $SD = 1.35$; altruism: $\alpha = .77$, $M = 3.74$, $SD = .88$; empowerment: $\alpha = .67$, $M = 3.10$, $SD = 1.28$).

4.2 Results

We performed a MANOVA with venting, altruism, and empowerment as dependent variables, and eWOM valence (positive/negative) as a between-subjects factor. The results reveal significant differences in the importance of venting, altruism, and empowerment for positive as compared to negative eWOM, $F(3, 312) = 927.73$, $p < .001$. As shown in Table 1, empowerment and venting were judged as significantly more important drivers of negative eWOM than of positive eWOM. Altruism did not differ between positive and negative eWOM. The results thus confirm that altruism is a driver of both positive eWOM (i.e., helping others with the purchase-decision process) and negative eWOM (i.e., warn-

ing others about unsatisfactory consumption experiences), whereas venting and empowerment are primarily drivers of negative eWOM. In summary, altruism, venting, and empowerment all serve as motives for negative eWOM.

Table 1: Importance empowerment, venting, and altruism for positive/negative eWOM

	<i>negative eWOM</i>	<i>positive eWOM</i>
Empowerment	3.31 ^a (.81)	2.87 ^b (1.10)
Venting	2.94 ^a (.97)	1.46 ^b (.80)
Altruism	3.46 ^a (.80)	3.79 ^a (.85)

Notes. Mean scores on a five-point scale (with standard deviations). a,b Row entries with different superscripts differ significantly at $p < .01$

5 Main Study

The aim of the main study was to examine the relative importance of altruism, venting and empowerment as motives for negative eWOM (RQ1), along with their relationship to webcare receptiveness (RQ2). To address this aim, we rely on survey panel data collected in the Netherlands through CASI by the market research company TNS-NIPO. The survey was intended to tap consumers' negative eWOM activity. To be included in the study, therefore, panel members had to have engaged in negative eWOM. To this end, panel members were asked whether they had posted one or more negative comments, ratings, or messages about a product or service on the internet in the past six months. Internet was specified as review or other websites, social networking sites (e.g., Facebook), blogs, micro-blogs, internet forums, and online communities. This filter question was administered for 71 brands from eight industries, including internet, mobile telephony, insurance, banking, automotive, energy, gas stations, and supermarkets.

Of those who had engaged in negative eWOM ($n = 4810$), a stratified sample was randomly drawn using brand names as a stratum to ensure that the dataset would cover a variety of brands from different industries ($n = 1592$). Panel members within this sample were invited to complete an online survey with questions pertaining to the eWOM and any webcare that may have been posted in reply to the eWOM. A total of 1132 valid surveys were received, which translates to a response rate of 71%.

5.1 Measures

We used statements similar to those in the assumption check in order to examine venting, altruism, and empowerment as motives underlying negative eWOM.

Given space constraints, the statements were measured dichotomously. Respondents were asked to indicate whether the statements were applicable to them (0 = *no*, 1 = *yes*). Multiple motives were allowed to apply to the negative eWOM postings of respondents.

To measure webcare desirability, we asked consumers to indicate whether they had desired to receive a webcare response from the company in reaction to negative eWOM (0 = *no*, 1 = *yes*). We also asked whether they had received such a response (0 = *no*, 1 = *yes*). Webcare was desired by 57% of the respondents, and webcare was received by 26% of the respondents. Consumers who desired webcare were more likely to receive webcare (42%) than were those who did not desire webcare (4%).

Consumers who had received webcare in response to negative eWOM were asked to indicate their satisfaction with the webcare encounter with a rating from 1 (*not satisfied at all*) to 10 (*very satisfied*) in terms of tone (i.e., empathy), content (i.e., solution to the problem), and service (i.e., responsiveness, cf. Parasuraman, Zeithaml and Berry, 1998), $\alpha = .91$, $M = 5.13$, $SD = 2.12$. As a measure for post-webcare eWOM, we asked respondents whether they recommended the company more, less, or equally to other consumers on the internet after having received webcare (cf. Danaher and Rust, 1996). Answers varied from 1 (*much less*) to 5 (*much more*), $M = 3.02$, $SD = .81$.

Finally, we included questions to measure social demographics—including age ($M_{\text{age}} = 50$, $SD_{\text{age}} = 14.90$), gender (male: 72%), and education (vocational or higher education, 72%)—as well as consumers' complaint history (i.e., whether consumers had filed their complaints through traditional customer care channels before voicing them online: 68%).

5.2 Results

The first research question (RQ1) aimed to gain more insight into the relative importance of venting, altruism and empowerment as motives for negative eWOM. The results demonstrate that venting, altruism, and empowerment are almost equally important as drivers of negative eWOM. Of the consumers who had engaged in negative eWOM, 34% had been motivated by empowerment, 38% had been motivated by venting, and 35% had been motivated by altruism. A Cochran's Q test, which tests for differences between three or more related-sample proportions, revealed no significant differences in the importance of these motives ($Q = 4.99$, $df = 2$, $p = .08$).

The second research question (RQ2) is intended to investigate how the motives that consumers have for engaging in negative eWOM activity are related to webcare receptiveness in terms of (a) webcare desirability, (b) webcare satisfaction, and (c) post-webcare eWOM activity. Given the binary nature of webcare desirability, we ran a logistic regression analysis in order to answer RQ2a. As

shown in Table 2, empowerment appears to be a significant predictor of webcare desirability. Consumers driven by empowerment were 14 times more likely to desire webcare than consumers who are not driven by this motive ($b = 2.66, p < .001, OR = 14.26$). Venting and altruism appear to be non-significant predictors of webcare desirability.

Linear regression analyses were run to answer RQ2b and RQ2c. As demonstrated by the results presented in Table 3, empowerment is positively related to webcare satisfaction ($\beta = .17, p < .05$), whereas venting ($\beta = -.14, p < .001$) and altruism ($\beta = -.17, p < .001$) are negatively related to webcare satisfaction. According to these findings, consumers driven by empowerment were inclined to evaluate webcare favorably, whereas the opposite applied for consumers who were driven by venting and altruism.

Table 2. Logistic regression analysis predicting likelihood to desire webcare

	Model 1		Model 2	
	B (SE)	Odds	B (SE)	Odds
Gender (f)	.11 (.15) ***	1.11	.18 (.18) ***	1.21
Age	.04 (.01)	1.04	.03 (.01)	1.03
Education	-.13 (.15) ***	0.88	-.17 (.05) ***	0.84
CC-history	1.82 (.15) ***	6.17	1.72 (.17) ***	5.58
Empowerment			2.66 (.23) ***	14.26
Venting			-.24 (.17)	0.79
Altruism			.03 (.17)	0.97
Nagelkerke R^2	.26		.47	
Model χ^2	247.73 ***		484.05 ***	

Table 3. Regression analysis predicting webcare satisfaction, and post-webcare eWOM

	Webcare Satisfaction		Post-webcare eWOM	
	Model 1	Model 2	Model 1	Model 2
Gender (f)	.07	.09	.01	.03
Age	.17 **	.10	-.09	-.16 **
Education	.06	.06	-.06	-.04
CC-history	-.04	-.15 *	-.02	-.10
Empowerment		.16 **		.05
Venting		-.14 **		-.21 ***
Altruism		-.17 **		-.23 ***
R^2	.04	.11 ***	.01	.18 ***

Although consumers who are driven by empowerment are inclined to be satisfied with webcare, they are unlikely to voice such satisfaction to fellow con-

sumers: empowerment is unrelated to post-webcare eWOM. Venting and altruism are negatively related to both eWOM (venting: $\beta = -.21, p < .001$; altruism: $\beta = -.23, p < .001$). Consumers driven by these motives evaluated webcare negatively and engaged in even more negative eWOM after having received webcare.

6 Discussion

This study aimed to enhance existing knowledge concerning negative eWOM activity, webcare activity, and the manner in which webcare is received by those engaging in negative eWOM activity. To this end, we examined the motives that consumers have for engaging in negative eWOM (RQ1), and whether these motives play an important role in determining consumers' receptiveness to webcare (RQ2).

The results demonstrate that consumers express their complaints with companies through negative eWOM for reasons of altruism (i.e., to warn other consumers about unsatisfactory consumption experiences), venting (i.e., to unburden negative emotions resulting from unsatisfactory consumption experiences), and empowerment (i.e., to strengthen consumers' redress power after unsatisfactory consumption experiences). These motives appeared equal important drivers of negative eWOM. The results further reveal that the various motives underlying negative eWOM activity have varying effects on webcare receptiveness in terms of webcare desirability, webcare satisfaction, and post-webcare eWOM activity. Venting and altruism are unrelated to webcare desirability, although they are negatively related to webcare satisfaction and subsequent positive eWOM. This means that consumers who are driven by these motives are inclined to evaluate webcare negatively and to engage in even more negative eWOM after receiving webcare. In contrast, empowerment is positively related to webcare desirability and webcare satisfaction. Consumers driven by empowerment (as opposed to other motives) are more likely to desire webcare and to be satisfied with webcare. Although empowerment-driven consumers are appreciative of webcare, they do not tend to voice such positive sentiments to other consumers, as demonstrated by a non-significant relationship between empowerment and post-webcare eWOM activity.

These results provide useful insight into negative eWOM activity and the opportunities and challenges that companies face when dealing with negative eWOM. With regard to negative eWOM activity, this study complements previous research that identifies venting, empowerment, and altruism as potential motives for negative eWOM, but which has thus far been able to substantiate only the value of altruism. As noted in this chapter, previous studies have focus largely on the motives for general eWOM activity and do not include separate investigations into the motives for positive and negative eWOM (i.e., process

gratification perspective). It is likely that venting and empowerment emerge as less important in these studies because these motives are typical only of negative eWOM. By examining negative eWOM independently of positive eWOM (i.e., content gratification perspective), this study demonstrates that altruism, venting, and empowerment all play a role as motives underlying negative eWOM activity. As such, our results support the claim made by Sundaram and colleagues (1998) that motives for engaging in negative eWOM differ from motives for engaging in positive eWOM and that they should therefore be studied individually.

With respect to the challenges associated with negative eWOM, this study highlights the changing power relationships between marketers and consumers (Fournier and Avery, 2011). Social media provide consumers with a more active role in their communications about and with companies. Marketers are thus advised to be cautious when intervening in consumer-to-consumer interactions (e.g., negative eWOM), as such interventions may be interpreted as a token of disrespect for consumers and their opinions (cf. Fourier and Avery, 2011). This indeed seems to hold for consumers engaging in negative eWOM for reasons of venting and altruism. These consumers have no constructive goals for negative eWOM, and they do not appreciate webcare in response to their eWOM. Companies that push webcare upon these consumers in order to counter negative eWOM risk becoming the subject of even more negative eWOM. Companies should therefore reserve their efforts to address negative eWOM that is voiced by consumers who are driven by empowerment. The goals that these consumers pursue through negative eWOM are more constructive, thus making them more likely to desire webcare and to be satisfied with webcare.

Although empowerment-driven consumers are likely to be satisfied with webcare, they are not likely to voice such satisfaction through post-webcare eWOM. This finding may be explained by previous literature showing that consumers prefer to appear consistent in their communications, especially when observed by many others (Nyer and Gopinath, 2005). The more publicly one declares a position, the more one becomes committed to and locked into that position. Thus, when consumers engage in the relatively public act of negative eWOM, they may be less likely to engage in positive WOM after having received a webcare response, as this would make them appear inconsistent in their communications to others.

The finding that webcare cannot transform negative eWOM into positive eWOM, implies that webcare should focus on customer relationship management and, to a lesser degree, on reputation management. On the other hand, the results do not rule out the possibility that a company's reputation could benefit from webcare. Given that a company's webcare reactions are observed by many other consumers in addition the complainant, webcare is not necessarily depend-

ent on positive eWOM to signal positive associations to a broad audience. As a publicly available message, webcare alone can give the impression that the company is emphatic to the needs of its customers and that it provides good service (Kerkhof et al., 2010). Further research is needed to examine this possibility.

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Part II. The Faces of Advertising

Product Placement: A New Definition, Classificatory Framework and Agenda for Future Research

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1 Introduction

Product placement has been an often used tactic in the marketing, advertising and communication industries. Product placement within these emerging platforms is developing new income streams and as a result, over the past decade there has been a resurgence of product placement, in particular within new media platforms such as video games, virtual worlds, social media and reality television programs (Taylor, 2009). For instance, in Australia, the estimated value of in-game advertisements is AU\$1.25bn (Cornwell and Schneider, 2005; Manktelow, 2005). Major brand names such as American Apparel, Starwood Hotels, IBM, Dell, Sears, and even Reuters have substantial presence in the popular online virtual world *Second Life* (Rubel, 2006).

The goal of this chapter is to develop a classificatory framework and model to contribute to the body of knowledge that sits between product placement and these newer digital platforms. This chapter commences by reviewing the current literature on product placement, brands and advertising, particularly in new media platforms. The work will then highlight a gap in the knowledge where there is limited research in the areas of effectiveness of product placement, how consumers interact with new media platforms, and the specific working dynamics of product placement in those platforms. Subsequently, a refined definition for product placement is proposed by reconciling and reviewing definitions as they have evolved over time. Next, a classificatory framework for the investigation of product placement across multiple platforms is proposed. Finally, a brief presentation of possible methodologies is posited as a future research guide in this domain.

2 Literature Review

Advertising has been identified as one of the key instruments that facilitate meaning transfer from the culturally-constituted world to consumer goods (McCracken, 1986; McCracken, 1989). According to McCracken's (1986) theo-

ry of meaning transfer, the location of meaning resides within our culturally-constituted world, consumer goods and the individual consumer. Cultural categories are substantiated through material objects, by instilling a tangible record of cultural meaning that is otherwise intangible (McCracken, 1986). A valuable role of communication therefore is to act as a vehicle for meaning transfer. Cultural properties from the world come to reside in the unknown properties of the consumer good and it is the advertiser's job to identify the cultural properties for the intended product (McCracken, 1986). Whether this transfer of meaning is successful or not depends on the consumer. It is also dependent on the consumer whether or not they are able to recognise the similarities between the consumer good and the cultural properties.

As an extension of McCracken's perspective, Escalas and Bettman (2005) explore the relationship between brands, meaning transfer and self-brand connections. It is suggested that based on the established cultural properties in the consumer good, a self-brand connection (SBC) may be formed (Escalas, 2004). Consequently, consumers use products and brands to construct self-identity that is supported by the appropriate brand/product associations created by marketers. Gwinner (1997) proposes that consumers have become more 'active' in their interactions with brands and advertising, and are often seeking 'meaning' in products to supplement their concept of self. This premise can be transferred to social media, especially virtual worlds, as consumer exchanges are enacted from a particularly personal level. As a result, it is the contention of this chapter that consumers' ability to relate and associate with brands in the online sphere is possibly of more or at least equal importance as it is offline.

There is a vast body of literature that surrounds product placement in traditional media forms such as fiction, film and television. Increasingly, this is supported by literature in other new and interesting contexts such as computer games, virtual worlds and social media. (Kureshi and Sood, 2010; Taylor, 2009).

The majority of research on product placement emanates from the US, with the UK and Australian contexts also being quite pronounced (Kureshi and Sood, 2010). Very limited research has been done on other markets such as the emerging markets of Asia and South America or the developed markets such as Europe (Kureshi and Sood, 2010). Irrespective of the media types, product placement research often encompasses studies on its effectiveness, typically with a focus on consumer attitudes and memory effects (brand recall and recognition) (Barnes, 2007; Glass, 2007; Gupta and Gould, 1997; Mackay, Ewing, Newton and Windisch, 2009; Mau, Silberer and Constien, 2008; Nebenzhal and Secunda, 1993; Winkler and Buckner, 2006).

The current literature has explored issues such as whether brand placements in computer or video games shift pre-existing consumer attitudes towards a given brand (Mackay et al., 2009). McDonnell and Drennan (2010) highlighted

the positive impact of product placement on brand recall and recognition for new brands. Computer games research has investigated the level of gaming experience influencing brand attitudes and subsequent purchase intention effects (Barnes, 2007; Glass, 2007; Mackay et al., 2009; Mau et al., 2008). There has also been a study on the acceptability of product placement in advergames and whether it is correlated with consumers' attitudes towards advertising in general (Winkler and Buckner, 2006). However, much of the work in this area is still, in its infancy.

When read within the context of emerging media landscape, the current literature demonstrates nascent opportunities for the development of additional research which explores issues such as product placement effectiveness (Barnes, 2007; Bartlett, Griffiths and Badian, 2008; La Ferle and Edwards, 2006; McDonnell and Drennan, 2010; Taylor, 2009). Taylor (2009) recommended additional studies on the workings of product placements, to understand how product placement can enhance brands or meet various communication objectives. Responding to such calls for research will address the increasing demand for advertisers to demonstrate ROI (return-on-investment), a well-recognised client imperative. While Nebenzhal and Secunda's (1993) attitudinal study provides a more empirical basis for comparing rating scales, Kureshi and Sood (2010), reveal that very few studies have focused on the managerial aspects of product placement usage.

Another key area consistently recommended for future research is the study of product placement effectiveness in relation to different media contexts. Gupta and Gould (1997) propose that the entire context of the product placement being examined has to be considered and analysed to better understand the acceptability of the placement. For example, consumer perception might differ when viewing a movie in the cinemas as opposed to DVD viewings at home. They point out that the acceptability of ethically-charged product placements such as alcohol and cigarettes may differ depending on the film rating. Similarly, Karrh (1998) recommends further study on the impact of the program type (TV, video games or other interactive media) to elucidate the meanings that are being transferred by the placed brands and products. The question proposed was "how do audiences react to brand placement across media?" (Karrh, 1998, p. 46). D'Astous and Seguin (1999) also encouraged more studies into how consumers interpret product placements in different contexts from a more active perspective.

A small body of literature has emphasised the need for research into only one media format, thus replicating traditionally differentiated studies; i.e.: film or television. The study by Barnes (2007) strongly emphasised the need for further empirical research into virtual worlds. Recommendations by Barnes (2007) include calling for future work on the impact of advertising in virtual worlds (perceived utility, trust, product knowledge), the use of metrics to meas-

ure advertising effectiveness in virtual worlds, the role of advertising and the growth of brands in virtual worlds, and, most intriguingly, the effectiveness of advertising models used in virtual worlds compared to other forms of advertising on the Internet. The distinction between virtual worlds and the Internet is interesting in this context because they are obviously very different platforms.

Other recommendations included further testing of the effectiveness of different types of advertising for various genres of games, or whether effectiveness is affected by varying degrees of brand integration, and also the examination of the interaction between the player and the ad placement (Bartlett et al., 2008; Winkler and Buckner, 2006). These suggestions for future research all emanate from the context of placements (e.g. by media type and placement type) impacting overall effectiveness.

In conclusion, further research into the domain of product placement can be justified by: the increased application of product placements in new media platforms, evolving marketing communication objectives for brands, and, most importantly, the limited research contributions to date. Further investigation into how consumers engage with the media, their behaviours, their attitudes toward a brand and how they associate with brands, has the potential to test comparatively how advertising and branding affects consumers in each respective platform where product placement is concerned.

3 Reconciling Definitions

This section reconciles past definitions before establishing a new definition that is suitable for the modern media context. An investigation was undertaken to determine product placement definitions over the past 15 years. Each definition was analysed by highlighting recurring characteristics, words and media descriptors in each definition. As shown in Table 1, the definitions were classified using the publication year of the articles as well as the media type that was the focus of the article, to provide suitable context for the reader. The year of publication helps situate the evolution of product placement definitions, while presenting media types identifies context.

Table 1: Overview of Product Placement Definitions

<i>Author(s)</i>	<i>Definition</i>	<i>Media</i>
Steertz (1987, p. 22)	The inclusion of a <i>brand name product, package, signage, or other trademark merchandise</i> within a <u>motion picture, television show, or music video.</u>	Movies
Friedman (1991, p. 83) <i>Used in Olsen and Lanseng,</i>	The placing of commercial messages in <u>non-promotional contexts such as films, television, theatre and novels.</u>	Movies, TV, Theatre

<i>Author(s)</i>	<i>Definition</i>	<i>Media</i>
2012		
Nebenzhal and Secunda (1993, p. 2)	Product placement (PPL) is defined as the inclusion of <i>consumer products or services</i> in <u>motion pictures</u> distributed to theatres by major Hollywood studios in return for cash fees or reciprocal promotional exposure for the films in marketers' advertising programs.	Movies
Balasubramanian (1994, p. 29) <i>Used in Dardis et al., 2012</i>	A paid product message aimed at influencing movie (or television) audiences via the planned and unobtrusive entry of a <i>branded product</i> into a <u>movie (or television program)</u> .	Movies, TV
Baker and Crawford (1995, p. 2)	The inclusion of <i>commercial products and services</i> in any form in <u>television or film</u> productions in return for some sort of payment from the advertiser.	Movies, TV
Gupta and Gould (1997, p. 37)	[Product placement] involves incorporating <i>brands</i> in <u>movies</u> in return for money or for some promotional or other consideration and actually is one of many types of placement which include <u>TV, radio, music videos, video games, novels, plays and songs, as well as movies</u> .	Movies
Karrh (1998, p. 33) <i>Used in Dardis et al., 2012</i>	The paid inclusion of <i>branded products or brand identities</i> , through audio and/or visual means, within <u>mass media programming</u> .	Movies, TV
D'Astous and Seguin (1999, p. 897) <i>Used in Homer, 2009</i>	The placement of a <i>brand or a firm</i> in a <u>movie or in a television program</u> by different means and for promotional purposes .	TV
Balasubramanian et al. (2006, p. 115) <i>Used in Homer, 2009</i>	<i>Brand appearances</i> that represent deliberate promotional efforts that are reinforced by formal agreements between marketers and the creators/managers of <u>editorial content</u> .	Movies, TV
Winkler and Buckner (2006, p. 24)	The term product placement is used to refer to the positioning of <i>images of a brand or product</i> in an <u>entertainment medium such as an online game</u> .	Games
Glass (2007, p. 23)	As an advertising technique, product placement involves inserting a <i>brand or product</i> into a <u>movie, television show, book, or video games</u> .	Games
Ginosar and Levi-Faur (2010)	Product placement is the purposeful incorporation of commercial content into <u>non-commercial</u>	Movies,

<i>Author(s)</i>	<i>Definition</i>	<i>Media</i>
p. 467)	<u>settings</u> , that is, a <i>product plug</i> generated via the fusion of advertising and entertainment.	TV
Williams et al. (2011, p. 2)	Product placement – also known as product brand placement, in program sponsoring, branded entertainment, or product integration – is a marketing practice in advertising and promotion wherein a <i>brand name, product, package, signage, or other trademark merchandise</i> is inserted into and used contextually in a <u>motion picture, television, or other media vehicle</u> for commercial purposes .	Movies, TV

* Emphasis added

Table 1 demonstrates that there are multiple ways of describing “placements”, i.e.: product, brand, signage, packaging, trademark and so on (italicised font). Karrh (1998) notes that the term “brand placement” is more appropriate than the more commonly used term “product placement”, as, generally, it is the brand being highlighted rather than the product (Karrh, 1998, p. 32). This is an important distinction but most theorists typically accept both terms being used interchangeably. The majority of definitions failed to recognise that placements could be included in dialogue or background audio, therefore, future definitions should not be limited to signage, trademark, and/or the product itself.

The media element (underlined font) and notion of commercialisation (bold font) are also evident in almost all of the definitions presented in Table 1. The definitions focus only on limited media context and mention specific media types, such as television, movies, online games and so on (Karrh, 1998). Whilst product placement has become increasingly popular in new media vehicles, more recent definitions have incorporated more general terms such as ‘entertainment environment/medium’ and even ‘other media vehicle’ in an attempt to not be exclusionary for all media types (Lehu and Bressoud, 2008; Williams, Petrovsky, Hernandez and Page, 2011; Winkler and Buckner, 2006). As a result, a definition must be flexible and able to encompass all future placement contexts.

Emanating out of the review of past product placement definitions, the following new definition for product placement is proposed: *any incorporation of product and/or brand placement, both visual and/or audio, in a range of media contexts for commercial purposes*. The next section presents a classificatory framework for product placement that responds to this definition.

4 A Classificatory Framework for Product Placement

There have been many attempts to classify and categorise different placement strategies (Barnes, 2007; D'Astous and Seguin, 1999; Glass, 2007; Winkler and Buckner, 2006). A valuable contribution is the classification of product placement in television sponsorship by D'Astous and Seguin (1999), where three main types of placement strategies were identified as implicit, integrated explicit and non-integrated explicit. Implicit product placement plays a passive role where the product or brand is not formally expressed to the audience, while an integrated explicit placement is formally expressed and plays an active role where the product's benefits and attributes are clearly demonstrated to the audience (D'Astous and Seguin, 1999). On the other hand, non-integrated explicit product placement is formally expressed but not included in the content of the program (D'Astous and Seguin, 1999). Here, the contextual roles of the product and brand, as well as the modality of placements (visual or audio), are facets that affect the effectiveness of the respective placement strategies.

In a study on computer games, Glass (2007) categorised product placements into three types: monopolisation (e.g. the total monopoly of brand in the game), billboarding (e.g. natural placements of brand or product), and utilisation (e.g. the use of products in a natural way by gamers). Winkler and Buckner (2006) hypothesised how effective a message might be, is dependent on the degree to which the placement is integrated into the game itself. In their study of advertising messages in advergames, three levels of integration were distinguished, including: associative (e.g. displays of brand logo or product in the background as part of lifestyle or activity in the game), illustrative (e.g. use of branded products or character in the game), and demonstrative (e.g. gamer is able to interact with product features in the natural context of the game) (Winkler and Buckner, 2006). In another study on virtual worlds, Barnes (2007) proposed four main types of advertising in virtual worlds including: avatars and other 3D objects (e.g. cars and clothing), static media (e.g. billboards and posters), multimedia (e.g. videos including music, movies and television), and cross-promotion (e.g. promotional activities in the malls).

From the classifications mentioned above, it is observed that one of the main underlying factors that determines placement strategy is the level of integration of the product or brand. According to Russell's (2002) study on the attitudinal effects of product placements in a TV sitcom, one of the key dimensions of placements is plot integration. It is proposed that high levels of plot integration will assist consumer memory as more meaning is inherent in the placements when integrated into the narrative structure (Olsen and Lanseng, 2012; Russell, 2002). Examples of high plot-integrated brands are FedEx in *Cast Away* (2000), BMW in *Tomorrow Never Dies* (1997), and Reese's Pieces in *E.T the Extra-Terrestrial* (1982). These brands played integral roles by contributing to the narrative and plot of the films. An example of low plot-integrated brands may

be the latest Batman movie promotional billboard advertisement in *I Am Legend* (2007) and billboard advertisements for Obama's first election campaign in the *NBA* (2008) video game. Here, the advertisements were used to enhance the natural context of the film and video game environment and were not involved in the substantive narrative.

An additional factor that may influence the effectiveness of product placement is the level of audience involvement. According to Greenwald and Leavitt (1984), there are four levels of audience involvement. These four levels are *pre-attention* (the lowest level), *focal attention*, *comprehension*, and *elaboration* (the highest level). At low levels of audience involvement, there is little capacity to focus and to decipher the message content (Greenwald and Leavitt, 1984); at higher levels of involvement, there is increased capacity to understand and process the message content. For example, there is a higher level of audience involvement when playing a video game compared to listening to a radio program whilst driving. The more involved the audience is with the media content, the more likely they are to consider the information presented in the narrative text (Olsen and Lanseng, 2012). Thus, a higher level of involvement could potentially lead to an increased level of processing of the placements.

Figure 1 proposes a classificatory framework for the different types of product placement taking into account the two aforementioned influencing factors. This classificatory framework is demonstrated using a circumplex model with a vertical axis (level of integration), and a horizontal axis (level of audience involvement). Examples of different types of placements are plotted within the circumplex. An example of Glass's (2007) utilisation category of placements is the use of Adidas uniforms in *FIFA*, as presented in Figure 1. This placement is very well integrated in the narrative context of the game and the consumer is extremely involved in the game narrative. The position of a less integrated product placement is featured in Figure 1. e.g., Obama's first election campaign's billboards in games *Burnout Paradise* and *NBA*. These placements were not central to the narrative of the game and do not contribute to the plot of the game, but again, the consumer is very involved in the game narrative as an active player. The implicit use of a product or brand, such as a Coca-Cola bottle in the background of a shot in a TV show where two characters are having a conversation in a restaurant, is considered to have very low levels of integration.

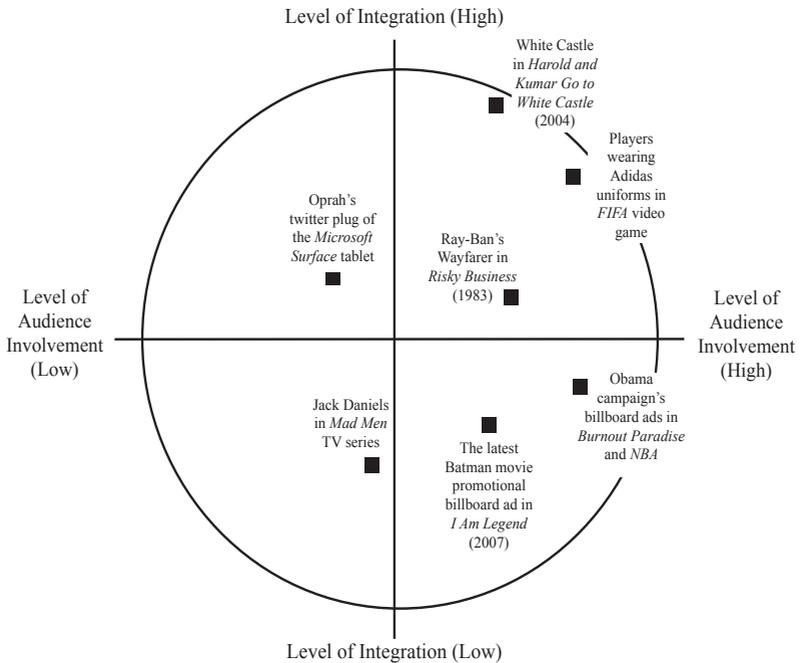


Figure 1: Classificatory Framework for Different Product Placement Types across Media Platforms.

On the contrary, when a product or brand is central to the plot of the film, such as *Harold and Kumar Go to White Castle* (2004), the brand White Castle becomes completely integrated into the film. It could be argued that the level of audience involvement may vary, depending on whether the film was viewed in the cinema or at home on DVD with the possibility of many distractions that may affect their viewing pleasure. With this example we assume the film was consumed in the cinemas where the level of audience involvement may be comparatively greater than in other media formats, such as watching it at home. Celebrity Twitter plugs and sponsored blog posts have mid to high levels of integration as the brand name or product endorsed are explicitly mentioned or comprise a large part of their narrative content. This classificatory framework aims to identify the various types of product placements in the contemporary advertising world. Consequently, this classificatory framework (Figure 1) is a valuable strategic planning tool for instances when managers need to understand the relationship between brands, product placements and consumer behaviour. The next section highlights some pertinent methodological issues that should be considered by future product placement researchers when comparing domains.

5 Methodological Approaches

It is possible that a causal model or structural equation model using scenario techniques as the stimuli should be favoured for future work (Bechwati and Morrin, 2003; Folkes, 1984; Westberg, 2004; Zourrig, 2010). It is predicted that the classificatory framework proposed in Figure 1 may provide guidance when comparing product placements in different media contexts. If comparison is to be made across media types then constancy of conditions needs to be facilitated in future study designs. Researchers need to be mindful of the many methodological approaches that exist when completing future research on product placement. It is notable that studies in marketing, public relations and business has successfully used experimental designs and similar classification methods to compare different formats, albeit for different research questions (Coombs and Holladay, 2009; Weinberg and Pehlivan, 2011; Westberg, 2004; Zourrig, 2010). It is important to understand ways consumers respond to or use different media platforms and how they pertain to product placement (Weinberg and Pehlivan, 2011). Moreover, it has been acknowledged that it is valuable to test different classifications so as not to limit the development of just one strategy dictum developed from only one dominant format type (Coombs and Holladay, 2009).

With a pseudo-experimental design in mind, it is anticipated that future work could involve two phases of data collection. The first phase will use a qualitative research method, which will be completed prior to the second phase of data collection involving a quantitative research method. For Phase 1, interviews might be appropriate. This method of data collection is particularly useful for exploratory research and problem clarification. In-depth interviews provide a means to explore consumer perspectives on a certain idea, program or situation (Boyce and Neale, 2006). As a synchronous communication tool, face-to-face interviews allow the interviewer to gain extra information based on social cues such as intonation and body language (Opdenakker, 2006). Face-to-face interviews also allow flexibility as the interviewer can adapt the questions where necessary (Sekaran and Bougie, 2010). Additionally, a one-on-one environment allows participants to be more at ease and comfortable when answering questions, as well as free from any social pressure to conform, as there will be no group dynamics (Boyce and Neale, 2006).

For Phase 2, a quantitative online survey is possible. Surveys are a useful means for gathering information from a large group of people, particularly information about characteristics, actions or opinions (Kraemer and Pinsonneault, 1993). Phase 1 will assist to clarify a structural model or framework of relationships between pertinent constructs. A sample size from a population of Australian media users should be randomly selected to enhance generalisation of the findings. An online survey is beneficial because researchers can collect a large amount of data in a short space of time (Glasow, 2005; Sekaran and Bougie, 2010). Moreover, online surveys are relatively affordable and are also less time-

consuming. Online surveys also allow flexible presentation of stimuli for different types of media contexts (Evans and Mathur, 2005). This aspect is advantageous given that a newer media type is likely to be contrasted with a more traditional placement form.

6 Limitations and Contributions

When undertaking future research this chapter has alluded to being cognisant of the following issues. It has acknowledged that the sample size for the reconciliation of definitions is very small. New studies and definitions are continually being published; therefore, the possibility exists that some recent definitions may have been omitted. It is also acknowledged that the digital world of product placement is considered nascent and still in its early stages of knowledge development. Consequently, it may lack suitable psychometric scales for the measurement of important concepts. Further research may need to engage in significant scale development prior to addressing the specific research questions. Nevertheless, it is believed that future work will be of merit and will deliver significant theoretical and managerial utility in expanding the body of knowledge.

In conclusion, the major contributions of this chapter have been to highlight the limitations of the existing literature focusing on the effectiveness of product placements and advertising, particularly in the domain of the new media such as video games, virtual worlds and social media formats. By investigating the definitional landscape systematically, a refined definition of product placement has been proposed. Thus, a coherency between product placement and the contemporary advertising world has been established with this definition. Moreover, the chapter has provided insights into how consumers behave and interact with brands across platforms. This chapter contributes to the existing literature by classifying product placement across both traditional and new media platforms. We are optimistic that this background will facilitate and illuminate some practical implications for the effective use of product placement by media platforms.

7 References

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Building Brand Image Through Online Sales Promotion: A Comparative Study Between the Web User's Experience and Their Promotion-proneness

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1 Introduction

In the online medium, firms consider brand image to be a key asset that must be carefully managed, given that consumers cannot physically inspect products in this virtual 'establishment' and that therefore their perception of risk increases (Rowley, 2004). Those brands that enjoy a strong reputation and high brand value generate a reduced perception of risk for the client, along with greater credibility and brand preference – thereby encouraging their purchase (Grewal, Iyer and Levy, 2004; Korgoankar and Karson, 2007).

One of the marketing communications tools that is being increasingly used on the Internet is that of sales promotion (Morpace, 2011). This has traditionally been regarded as a tactical tool that delivers no benefits in terms of brand-building, but rather that contributes to devaluating the brand (Aaker, 1991; Me-la, Gupta and Jedidi, 1998; Yoo, Donthu and Lee, 2000). This scenario gives rise to the question of why firms are opting to use a communications tool with such a high potential to damage brand image, and whether there are circumstances in which it can benefit firms by contributing to brand value. The majority of studies in this sphere are based on traditional media and on sales promotions that are monetary in nature, which may skew the research findings. Hence in the present work, the aim is to examine the results that could arise if other types of online incentives were applied – specifically non-monetary sales promotions – and to test whether they have a similar effect to those found in traditional media.

Meanwhile, as mentioned earlier, the client's perception of risk is a key factor in shaping their behaviour on the Internet (Constantinides, 2004; Reisenwitz, Iyer, Kuhlmeier and Eastman, (2007). Therefore it may be assumed that consumers with different perceptions of risk will act differently when exposed to an online sales promotion. One of the variables that affect this perception is the individual's experience of using the Internet, with more novice users perceiving a greater level of risk than more 'expert' users. Various different studies have also demonstrated that the individual's past experience of using the Internet

medium is a major moderator of their response, affecting their decision-making and processing of online communications stimuli (Hoffman and Novak, 1996; Koufaris, Kambil and Labarbera, 2002; Thorbjornsen and Supphellen, 2004). Therefore it is possible that experience also affects the capacity of the online sales promotion to impact on brand image.

Finally, it has also been widely demonstrated that promotion-proneness influences the impact of sales promotions, particularly in terms of intention to purchase but also with regard to attitudes and perceptions (Palazón 2005; Yi and Yoo, 2011). Hence if the online medium follows the same pattern as traditional media, this variable will exert a moderating influence on the capacity of both types of promotional incentive to generate a positive brand image.

In light of this, the aim of the present study is to analyse the effect of online sales promotions (both monetary and non-monetary) on brand image, and to examine whether this effect is moderated by the extent of the consumer's promotion-proneness and/or by their level of experience in using the Internet.

2 Literature Review

Brand image on the Internet plays a fundamental role in an individual's decision-making process, for two key reasons. Firstly, the brand image helps them to synthesise all the information they have found on the Internet and reduce it down into easily-digestible concepts that are easy to recall, helping them to make their choice from amongst all the different alternatives they have found. Secondly, it helps the individual to minimise the risk they perceive as being associated with an e-purchase, by offering a safe, familiar option.

Online sales promotion is said to contribute to the creation and formation of brand image, since according to Aaker (1991), all variables in the marketing mix are capable of generating associations with a brand. Thus, sales promotions can influence attitudes towards the brand and help to create and reinforce a brand image. In this regard, no studies that analyse the impact of online sales promotion on brand image have been identified, although there are studies looking at how sales promotion in traditional media affect brand image. That said, a certain degree of controversy exists with regard to whether this influence is positive or negative. Most of the literature on traditional sales promotions asserts that they can erode or damage brand image, particularly when frequently implemented (Dodson, Tybout and Sternthal, 1978; Mela, Gupta and Jedidi, 1998, Yoo, Donthu and Lee, 2000). Other authors, though, submit that they can have both positive and negative effects on consumers' evaluation of a brand, depending on their capacity to generate satisfaction or surprise, by offering an unexpectedly low price or adding value as a means of improving brand profile (Lo, Lynch and Staelin, 2007; Lowe, 2010; Park and Lennon, 2009; Tybout and Scott, 1983).

It can be said, then, that the impact of sales promotions on brand image will depend on – amongst other variables – the type of sales promotion and the promotion-proneness of the individual concerned (Dodson, Tybout and Sterntha, 1978; Raghubir and Corfman, 1999; Raju, Dhar and Morrison, 1994).

As regards the influence of the type of promotional incentive on brand image, some works address this question in terms of traditional media (Beirao, 2001; Campell and Diamond, 1990; Chandon, Wansink and Laurent, 2000; Raghubir and Corfman, 1999). These works conclude that the differences found may be due to the nature of the incentive itself, as the consumer's reactions and selection processes differ, mainly according to the different benefits on offer (Jones, Reynolds and Arnold, 2006; Palazón and Delgado, 2009). The benefits associated with sales promotions may be utilitarian in nature (derived from the utility of the product itself) or hedonic (derived from enjoyment of the product) (Chandon Wansink and Laurent, 2000; Liao, 2006). However, not all sales promotions deliver the same benefits for the consumer, with those of a monetary nature tending to provide utilitarian benefits and those of a non-monetary nature offering hedonic benefits (Chandon, Wansink and Laurent 2000; Hirschman and Holbrook, 1982).

According to the literature review, non-monetary sales promotions are deemed to be the most apt for generating positive brand image, as they generate unique associations around the brand that help to strengthen it (Chandon, Wansink and Laurent 2000). This type of sales promotion almost always has a positive, stable effect on different product categories. By contrast, monetary sales promotions focus the consumer's attention on price alone, which becomes the main motive behind the purchase, and in the process the perceived quality of the brand falls (Beirao, 2001; Campbell and Diamond, 1990; Palazón and Delgado, 2009).

In light of the literature review, the following hypothesis is submitted:

H1: Non-monetary sales promotions achieve a more positive brand image than do monetary promotions.

On the other hand, according to Thorbjornsen, Supphellen, Nysveen and Pedersen, (2002), the effectiveness of interactive communications will depend on the individual's experience of Web use, among other factors, as this is capable of affecting consumer behaviour in the electronic marketplace (Hoffman and Novak, 1996; Liang and Huang, 1998; Thorbjornsen and Supphellen, 2004). Past experience of using the Internet has a major impact on the consumer's preferences and evaluations of brands and products (Alba and Hutchinson, 1987; King and Balasubramanian, 1994), and above all, on the perceived risk associated with online purchasing (Stanforth et al., 2000). According to Reisenwitz et al. (2007), for users who are more experienced in using the Internet their

perception of risk associated with this technology is lower than for those with less experience, hence they will make more use of it. For those who have only recently started to use the Internet, it is likely that they will undertake online activities for the very experience of it, whilst those with a longer history of use will do so with specific aims in mind (Novak, Hoffman and Yung, 2000; Pedersen and Nysveen, 2003). This latter group responds less to unexpected stimuli (Dahlén, 1998) and is less easily swayed by competing stimuli (Bruner and Kumar, 2000). Given that the effectiveness of a sales promotion depends on its capacity to surprise the user, and that novice users are more impressionable in the online context, it is to be expected that the latter – being unaccustomed to online promotional stimuli – will generate more positive feelings towards the brand than expert users. In this regard Hershberger (2003) demonstrates that novice users experience a greater change of attitude online as a result of exposure to a banner than do expert users, as they are more impressionable.

Meanwhile, according to Prospect Theory (Kahneman and Tversky, 1984), each kind of promotional incentive is assimilated by the consumer as a loss or a gain. Monetary sales promotions are generally seen as reducing losses, whilst non-monetary sales promotions are seen as gains (Diamond and Campbell, 1989). If novice Internet users perceive a greater risk in acquiring a product online than their expert counterparts, then it is likely that they will prefer those sales promotions regarded as a reduction in the loss the purchase will entail, as their sense of risk will decline. By contrast, expert users will prefer those sales promotions regarded as an additional gain, as their confidence in their own capacity to take decisions relating to online purchases is greater (Sanchez and Villarejo, 2004). This confidence enables them to dispense with the need to reduce the level of risk. However, as established by Han, Yoon and Cameron, (2001), their need to put themselves to the test and to take on new challenges and overcome them will lead them to prefer those sales promotions that are regarded as a gain and that consequently make them feel as if they have ‘passed the test’ and that they have the highest possible level of skill. Thus it is to be expected that novice users will generate the most positive feelings towards the brand when presented with monetary online promotions, while more expert users will do so when exposed to non-monetary online promotions.

In light of the literature review, the following hypotheses are submitted:

H2: Novice users generate a more positive brand image than expert users when presented with online sales promotion.

H3: Novice users generate a more positive brand image when presented with a monetary online sales promotion than when they are presented with a non-monetary online sales promotion.

H4: Expert users generate a more positive brand image when presented with a non-monetary online sales promotion than when they are presented with a monetary online sales promotion.

Meanwhile, studies in the realm of traditional media have extensively shown that promotion-proneness has a major influence on consumers' attitudes, perceptions and behaviours (Palazón, 2005; Yi and Yoo, 2011). It is logical to conclude, therefore, that promotion-proneness affects the relationship between sales promotion and brand image. Consumers who are more promotion-prone display an extremely positive attitude towards promotional initiatives. For them, the mere existence of a sales promotion is sufficient to drive their behaviour towards finalising their search for alternatives and selecting the brand in question (DeVecchio, 2005; Palazón, 2005). This leads to temporary, short-lived attitudes that are incapable of affecting brand image.

On the other hand, other authors consider that those who are most promotion-prone are in fact expert shoppers who will scrutinise in great detail each and every one of the benefits claimed in the promotional offer, and factor these in to their decision-making process (Webster, 1965; Henderson, 1994). In this scenario, it is less likely that such consumers will generate unfavourable attitudes towards the brand when presented with a sales promotion (Kumar, Karande and Reinartz, 1998). In light of the above, it would be logical to expect that the image generated by a promotional initiative may differ depending on the degree of promotion-proneness of the consumer in question.

It is worth noting that a consumer may not show the same level of proneness relative to all types of sales promotion. That is, they may have a positive attitude towards one type of incentive, but not towards another (Bawa, Srinivasan and Srivastava, 1997; Lichtenstein, Netemeyer and Burton, 1995; Palazón and Delgado, 2005), which may affect, nor not, the generation of brand image. It has been found that when a product is purchased, even though both utilitarian and hedonic motives are at play, when utilitarian motives are felt more strongly by the consumer in their decision-making then price becomes the most important feature, making the consumer more price-sensitive (Inman and McAlister, 1993; Wakefield and Inman, 2003).

In light of the literature review, the following hypotheses are submitted:

H5: Those individuals who are less sales promotion-prone generate a more positive brand image than do those who are more prone when presented with a non-monetary promotion.

H6: Those individuals who are more sales promotion-prone generate a more positive brand image than do those who are less prone when presented with a monetary promotion.

3 Empirical study

In order to achieve the research objectives a 1x2 between-subjects experimental design was conducted, where the online sales promotion type was the independent variable with two levels of incentives: Monetary and Non-Monetary. The individuals within the sample were randomly classified into two groups, each group then being exposed to one of the incentive types only.

As well as examining sales promotion type, testing the hypotheses required us to consider a further two independent variables, namely the Web user's degree of online experience, and their level of promotion-proneness. These two variables were not controlled between-subjects but rather were processed using the responses given by the subjects in the sample to the measurements of these variables, as outlined in the section on Measures.

The criteria suggested by several authors were applied to the selection of the product category and the brand to be implemented in the experimental design. More specifically, We considered to select a product category which the target population were used to make purchase decisions in Internet and that showed similar levels of consumption for both males and females (Palazón and Delgado, 2011). Moreover, we considered that the product category had to be widely purchased by the general population (Tan and Chua, 2004), carry frequent sales promotions (Alford and Biswas, 2002), and represent products that were perceived as totally hedonic or utilitarian. The aim here was to avoid the congruence of the product with the promotion type having any influence on the results (Chandon, Wansink and Laurent, 2000; Nunes and Park, 2003). Therefore, the category 'airline ticket' was chosen since it met these requirements.

According to the study undertaken by Nielsen (2010), airline tickets are one of the most highly-demanded and widely-purchased products on the Internet. In order to establish the hedonic/utilitarian components of the selected product and of the incentive provided, a pre-test was conducted on 90 individuals who shared the same characteristics with the target group. The scale proposed by Batra and Ahtola (1990), and implemented by Spangenberg, Voss and Crowley, (1997) and Chandon Wansink and Laurent, (2000), was applied to measure the product's characteristics. An index was determined by calculating the difference between the mean value of all utilitarian items and the mean of all hedonic items. The index obtained for the product 'airline ticket' was -0.1271 and this led us to conclude that its utilitarian and hedonic elements were of similar entity despite the hedonic component seemingly being dominant. Likewise, we decided that a very well-known brand should be chosen for the experiment, in an attempt to avoid possible bias in the results arising from consumer risk-aversion. The brand in question was Iberia, a major European airline.

The two specific incentives finally chosen for the experiment were a discount of €120 on the flight (monetary incentive) and two free nights' accommodation with a national hotel chain (non-monetary incentive).

The incentive value was assessed by following the ratio suggested by several authors (20% to 50% off the product price) (Alford and Biswas, 2002; Hardesty and Bearden, 2003; Nunes and Park, 2003; Tan and Chua, 2004). In addition, we aimed to ensure that we achieved a value that was likely to be coherent with the benefits desired by the Internet user (entertainment, fun, etc.) and with the offered product, as a way of increasing its ability to attract the consumer's attention.

Two banners were thus created for the experiment, one offering a monetary incentive (price discount of €120) and the other a non-monetary promotional incentive, also with a value of approximately €120. In the aforementioned pre-test we checked to ensure that the non-monetary incentive was indeed perceived to have a monetary value of approximately this amount, by using a One Sample t-test with a reference value of 120. The results indicated that there were no significant differences regarded the perception of a value of €120 for the non-monetary promotion (Non-Monetary: $p > 0.5$).

In selecting the website to which the experimental treatment would be applied, the findings from the Internet User Survey carried out by the Spanish Association of Communication Media Research (Asociación para la Investigación de Medios de Comunicación - AIMC) were taken into account (AIMC, 2011). The study found that the most widely-visited websites are generalist portals and daily online newspapers. The site finally chosen for the present study was the portal belonging to the Spanish daily newspaper El Mundo (www.elmundo.es), which is considered to be the leading digital daily in Spain. It was not possible to apply the experimental treatments to the real website of the electronic newspaper in question. Instead, an IT expert was briefed to create a Web application that could capture in real time the elmundo.es website and link it to a dedicated URL on a server used for the purposes of the experiment. The Web application consisted of two frames; on one of these the real-time El Mundo webpage was uploaded, and on the other the promotional treatment was applied. By using this combination of frames it was possible to achieve the effect of the promotion appearing on the newspaper's actual website.

3.1 Measures

The dependent variable 'brand image' was measured using a scale adapted from that of Yoo, Donthu and Lee, (2000) and Aaker and Álvarez del Blanco (1995). This was a 7-point Likert scale with three items: (1) *Iberia has a strong personality*; (2) *Iberia has a strong image*; (3) *the intangible attributes of the Iberia brand are reason enough to buy it*.

Sales promotion-proneness was measured using the scale of general promotion-proneness proposed by Lichtenstein, Ridgway and Netemeyer, (1993) and applied by Palazón (2005) in the same geographical area. This was a 7-point Likert scale with four items: (1) *I have a favourite brand, but most of the time I*

buy the brand that's on special offer; (2) One should try to buy the brand that's on special offer; (3) I am more likely to buy brands that are on special offer than those that are not; (4) Compared to most people, I am more likely to buy brands that are on special offer.

To measure Web experience, subjects were asked a series of questions regarding the number of hours per week spent browsing the Web, the frequency of Internet use, and the type of online tools used. Immediately following the experiment, subjects were asked to find the solution to a specific problem, using the Internet, and were given a maximum of six minutes for the task. In line with the recommendations of Yun and Lee (2001), the time in seconds that each individual took to ascertain the correct solution would be indicative of their skill in using the Internet.

3.2 Organisation of fieldwork

The experiment itself was conducted at a number of Internet cafés that had been briefed previously on the process. The individuals in the sample were chosen at random on the street, not via the Internet, which meant that the sample was based on age and gender quotas proportional to the Spanish Internet user population. Once selected, subjects were invited to visit one of these cafés where they were then given precise instructions as to how to proceed. The experiment consisted of asking each individual to visit the website and browse it at their leisure for a maximum of ten minutes. After two minutes of browsing time, the experimental banner appeared, carrying the particular incentive that had been assigned to it. Simulating the habitual behaviour of Internet users when browsing, at this point the subjects decided whether to click on the banner or not. If they opted to close the banner, this registered as a 'non-click'. For those who decided to either click or close the banner, the questionnaire opened automatically at this point. For those who simply opted to continue browsing, the same questionnaire appeared after 10 minutes' total browsing time. The experiment was designed to match as closely as possible a real-life browsing situation, hence participants were left to choose how they wanted to browse, which pages within the site they wanted to visit, and whether they clicked on the promotional banner or not. In principle, then, all the individuals in the sample were subjected to the same experimental conditions, whilst their preferences would shape how these conditions would be modified. It should also be noted that the experiment itself was not carried out online but rather in a controlled setting overseen by supervisors, which ensured that the subjects' behaviour acted out as planned.

The sample obtained comprised 456 people. It was composed of 56 % men and 44 % women, whose ages ranged between 20-34 years (50 %), 18-19 years (18 %) and over 34 (32 %). The majority had monthly incomes of less than €1,500, and used email, social networks and the Internet several times a week, every day, or even several times a day.

4 Results

4.1 *Manipulation check and analysis of the psychometric properties of the scales*

Prior to testing the hypotheses we tested to check whether, in the sample, the monetary value associated with both incentives was perceived to be the same, namely €120. Following the procedure applied by Nunes and Park (2003) and Palazón and Delgado (2005), as in the pre-test, we carried out a One Sample t-test, the results showing that there were no differences in the perceived value of the two incentives (t : -1.81; p -value: 0.07).

The two groups of experimental subjects were distributed homogeneously both in terms of their composition and also their size (monetary incentive, 230 individuals; non-monetary incentive, 226 individuals).

Using the Kolmogorov-Smirnov test it was also shown that there were no significant differences between the two groups ($p < 0.05$) as regards the key socio-demographic variables used in calculating the quotas (gender and age). Nor were there found to be any significant differences in terms of the average obtained by the two groups in relation to promotion-proneness (F-test, $p > 0.05$). The average promotion-proneness (monetary: 3.89; non-monetary: 3.75) of the two groups was also fairly equal.

The validity and reliability of the multi-item scales used were analysed using CFA. The analysis showed that the user's promotion-proneness and brand image scales offered good psychometric properties and good goodness-of-fit indicators – the Chi-squared, p -value and RMSEA were all within acceptable limits (Brand image: χ^2 : 0.43 p -value: 0.86 RMSEA: 0.00; Promotion proneness: χ^2 : 1.10 p -value: 0.57 RMSEA: 0.00).

To test the proposed hypotheses an indicative variable was chosen as each individual's average scoring for each item on the scale.

4.2 *Testing the hypotheses*

To test hypotheses, a General Linear Model was applied, with the dependent variable 'brand image' and the independent variables 'type of online sales promotion', 'user's promotion-proneness' and 'user's Web experience'.

The latter two independent variables needed to be treated in advance of being included in the final model. Firstly, we recodified the variable 'user's promotion-proneness' into two categories (Low and High proneness), using the mid-point of the scale we chose (that is, 3.5 points). Prior to testing the hypotheses we also classified the users according to their level of experience in Internet use. To this end we carried out a hierarchical segmentation analysis using the 'experience' measurements. The analysis revealed two groups, namely high level of experience (58%) and low level of experience (42%).

The degree to which the basic suppositions of normality and homoscedasticity of the data were fulfilled was tested. The findings indicated that homoscedasticity was achieved but normality was not. However, it was shown that the distribution of residuals was not random and that deviations from the normal distribution were not excessive (Q-Q graph).

As regards hypothesis H1, the results showed that the type of sales promotion did have a significant direct effect on brand image ($p < 0.05$) (see Table 1). Non-monetary online sales promotion achieved a more positive brand image than monetary online promotion (see Figure 1). Therefore H1 finds support. In respect of H2, the results outlined in Table 1 indicate that experience of using the Internet has no direct effect on brand image when the user is exposed to an online promotional banner ($p > 0.05$). Both novice and expert Web users register a favourable brand image of around 5.10 points. H2 must therefore be rejected.

However, there is a quasi-significant interactive effect between the type of sales promotion used and the degree to which the user is experienced online (F: 3.69; $p < 0.10$). Figure 2 shows how expert Internet users generate a more favourable brand image in response to non-monetary online sales promotions than when exposed to monetary online sales promotions (Monetary: 4.87; Non-Monetary: 5.31; F: 5.34; p-value: 0.00), while novice users generate a brand image that is similar for both online promotion types (Monetary: 5.33; Non-Monetary: 5.20; F: 0.36; p-value: 0.44). Thus H3 must be rejected, while H4 finds support.

Finally, we found that promotion-proneness has a significant moderating effect on the influence of online sales promotion on brand image (F: 17.05; $p < 0.05$) (see Table 1). Furthermore, proneness has a moderating effect on the relationship between the type of online sales promotion the individual is exposed-to and the brand image obtained. Those users who are *less* promotion-prone generate a more favourable brand image when exposed to a non-monetary online promotion than when exposed to a monetary one (Monetary: 4.51; Non-Monetary: 5.33; F: 4.39; p-value: 0.00), thus confirming H5 (see Figure 3). However, the brand image that *more* promotion-prone individuals generate when exposed to monetary and non-monetary online sales promotions is very similar (Monetary: 5.41; Non-Monetary: 5.22; F: 0.21; p-value: 0.16). Therefore H6 must be rejected.

Table 1: Anova results

	S.S.	D.F	M.S.	F	p
Intercept	10724.27	1	10724.27	7494.50	0.00
Online S. promotion type	6.79	1	6.79	4.74	0.03
Internet Experience	1.70	1	1.70	1.19	0.27
Promotion-proneness	15.42	1	15.42	10.77	0.00
Online Sales promotion* Internet Experience	5.29	1	5.29	3.69	0.06
Online Sales promotion* Promotion proneness	24.40	1	24.40	17.05	0.00
Error	612.45	428	1.43		

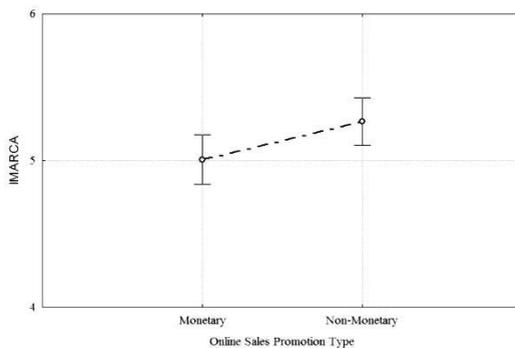


Figure 1: Brand Image Mean by Sales Promotion Type

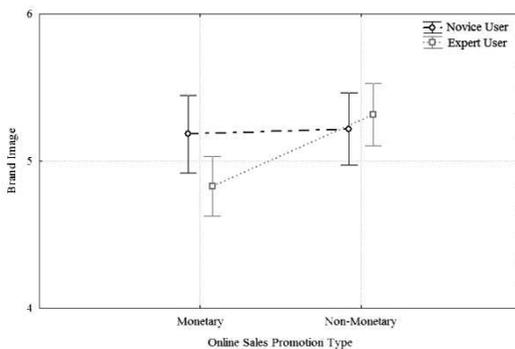


Figure 2: Brand Image Mean by Sales Promotion Type and Internet Experience

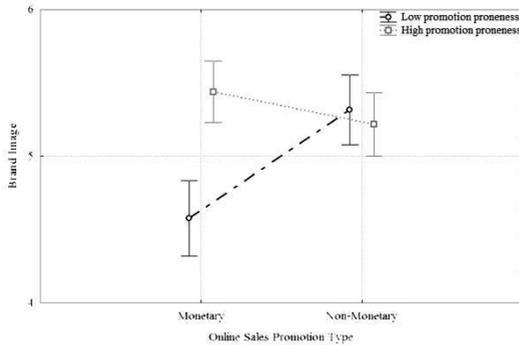


Figure 3: Brand Image by Sales Promotion Type and Promotion Proneness

5 Conclusions and Implications

The findings of the present work lead to the conclusion that the type of online sales promotion has a significant effect on brand image. Brand image differs depending on whether the online sales promotion is non-monetary in nature, or monetary – the former being more apt for achieving positive brand image. These results are in line with those obtained previously in the sphere of traditional media, in works by Chandon, Wansink and Laurent, (2000) and Palazón and Delgado (2009). Therefore it can be affirmed that in the online medium non-monetary promotional incentives are the most effective ones in creating positive brand images, just as is the case with traditional media. With regard to the individual's experience of using the Internet, the present work demonstrates that this has no direct influence on brand image. Furthermore, the work shows that for more expert Internet users it is non-monetary online sales promotion that is the most effective in achieving positive brand images. However, both types of promotional incentives appear to be equally effective amongst more novice users. This finding is likely to be due to the fact that the novice user is more impressionable and therefore easier to surprise. Hence, they find both promotion types to be equally novel, which generates feelings of pleasant surprise that then transfer over to the brand. Meanwhile, as was also found by Palazón (2005) and Yi and Yoo (2011) in relation to sales promotion in traditional media, the effect of online sales promotion on brand image varies according to the user's promotion-proneness. For highly promotion-prone individuals, monetary and non-monetary online incentives are equally effective at achieving a favourable brand image. However, in the case of those users who are less promotion-prone, monetary sales promotions generate a more negative brand image than non-monetary promotions. This finding affirms the assertions of Kumar, Karande and Reinartz, (1998) in relation to traditional media, and contradicts those of

DelVecchio (2005), who considers that for promotion-prone individuals, sales promotion is unable to affect brand image.

Therefore, online sales promotion can be a useful tool for creating or reinforcing a specific brand image. In designing such a campaign, it is important to bear in mind the user's Internet experience and the degree of promotion-proneness of the target audience. Where this characteristic remains unknown, it is advisable to opt for non-monetary sales promotions, given that their effect on brand image is more stable and positive than in the case of monetary sales promotions. However, if it is known that the target public is novice in terms of Internet experience, then monetary online promotions should be applied as these are shown to be more favourable to brand image in this case. If the target public is known to be little promotion-prone then non-monetary sales promotions should be applied.

Finally, a limitation of the present work is that the general opinion of the promotional banner itself may be exercising a moderating effect on the results obtained. Nor has the present research considered the possible effect of general opinions about the Internet as a medium or attitudes towards the particular web-site where the promotional banner was placed.

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Celebrities as Indirect Spokespeople in Advertising

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1 Introduction

Celebrity endorsement is not new. We only need to turn to our TV screens to see one in five ads featuring the hottest celebrity of the month (Solomon, 2009). In fact, the use of celebrities as endorsers appears to be on the rise with 14 percent of advertisements in America featuring a celebrity, 24 percent in India and 45 percent in Taiwan (New York Times, 2008). The collaboration between brands and celebrities is such a common feature in the contemporary marketplace, that we see many celebrities often becoming the face, or image, not only of consumer products and brands, but of organisations themselves. In Australia, for example, John Travolta is the Ambassador for Qantas airline, Hugh Jackman lends his image to Lipton Ice Tea and Nicole Kidman supports Swisse multivitamins. Research shows that celebrities are an asset to any brand as they are able to positively affect stock returns (Agrawal and Kamakura, 1995; Marthur, Marthur and Rangan, 1997).

The benefits of celebrity endorsers are evident. Celebrities are able to improve the marketer's ability to communicate with the audience by establishing a connection (or attachment) between the audience and the advertised brand (Atkin and Block, 1983; Sherman, 1985; Thomson, 2006; Ilicic and Webster, 2011). Celebrities also can assist in global marketing by transcending cultural barriers such as "time, space, language, religion, relationship, power, masculinity and femininity" (Mooij, 2004, p. 4). Moreover, celebrities can aid in enhancing a tainted company image (Till and Shimp, 1998), facilitate brand repositioning by transferring a strong and positive image onto the brand, increase purchase intention (Lafferty, Goldsmith and Newell, 2002) and ultimately, improve sales of the endorsed products (Kaikati, 1987).

Celebrity endorsers may, however, also embody possible risks for the endorsed product or brand. For example, consumers' brand evaluations may be affected negatively if the celebrity endorser loses popularity or becomes controversial and attracts negative media attention (Louie and Obermiller, 2002; Till, 1998). Examples include the negative impact on the Pepsi cola brand associated with Mike Tyson's, Madonna's and Michael Jackson's controversial anti-social behaviors (Till and Shimp, 1998) and the recent dropping of endorsement deals for

pro cyclist Lance Armstrong following the stripping of his seven Tour de France titles due to evidence of his use of banned sport enhancing drugs.

Much of the research on celebrity endorsements primarily focuses on identifying what constitutes an effective celebrity endorser in terms of their perceived personal attractiveness (McGuire, 1985), familiarity (Misra and Beatty, 1990; Kamins, 1990), likeability (Erdogan, 1999), credibility, believability and expertise (Ohanian, 1990). However, the effectiveness of celebrities is explored primarily when they act as direct spokespeople, where they provide relevant information about an endorsed brand or demonstrate the product endorsed. When celebrities are seen holding the product or using the product, they provide an explicit endorsement for the brand by clearly advocating the brand.

Celebrities, however, are not always employed as direct spokespeople. Advertisers at times strategically place celebrities in advertisements where they are featured providing unrelated brand information. In such instances, celebrities do not mention or provide any information about the endorsed brand. A current shift in advertising today accentuates the celebrities, with more advertisements highlighting information on the celebrity and providing no relevant information about the endorsed brand. For example, the celebrity dominates in recent advertisements for Ford cars in Australia. The thirty second television commercial featuring John Farnham, an iconic Australian singer, provides no explicit statement recommending the brand. John Farnham features with Ford but does not refer to the endorsed brand, instead he sings one of his most popular songs. This advertisement contains information consistent with the celebrity's persona or image, which is information relevant to the celebrity, but arguably irrelevant and not useful to consumers in making their judgments about the endorsed brand, Ford.

2 Literature Review

Research in celebrity endorsements suggests that a celebrity is an appropriate endorser when their relevant characteristics are consistent or compatible with that of the brand endorsed (e.g. Kamins, 1990; Misra and Beatty, 1990; Kamins and Gupta, 1994; Till and Busler, 1998; Till Stanley and Priluck, 2008; Ilicic and Webster, 2012). This match-up hypothesis suggests that celebrities are a match when the relevant characteristics of both the celebrity and the endorsed brand are congruent (Misra and Beatty, 1990). Celebrities are strategically chosen as endorsers when they have an image that fits or is similar with that of the endorsed brand. This image match provides consumers with consistent and supposedly relevant information about the brand (Kamins, 1990; Kamins and Gupta, 1994; Till and Busler, 1998, 2000; Till et al., 2008).

Consumers judge relevance based on a stimulus communicating issue-pertinent information and evaluate congruence on perceptions of suitability (Miniard, Bhatla, Lord, Dickson and Unnava, 1991). Research on match-up emphasizes the celebrity and endorsed brand possessing characteristics that complement each other, reinforcing relevant brand information and the suitability of the endorsement. However, relevant information may also be conveyed when a celebrity mentions the endorsed brand and supplies information about the brand within an advertisement. As such, a celebrity not only provides consumers with relevant brand information when they convey characteristics pertinent to the brand but also when they provide information relevant to the endorsed brand by describing brand benefits, demonstrating product functionality and explicitly endorsing the brand. For example, the solid, strong, dynamic and enduring characteristics of singer John Farnham are relevant to the positioning of the car brand, Ford. John Farnham also may be perceived as providing consumers with relevant endorsed brand information when he features in an advertisement for Ford and clearly endorses the brand, by mentioning details about the brand. On the other hand, John Farnham may be perceived to be incongruent and irrelevant to the brand when he provides little or no information about the Ford brand in an advertisement, by not mentioning Ford or stating any information about the brand.

Research in social judgment shows evidence to suggest that an individual's use of irrelevant information when in combination with relevant information causes their judgments to become less extreme, resulting in a *dilution effect* (Nisbett, Zukier, and Lemley, 1981). Social judgment studies manipulate the presence of irrelevant information between subjects and ask subjects to make judgments regarding the behaviour of a target individual (Nisbett et al., 1981; Tetlock and Boettger, 1989; Zukier, 1982; Peters and Rothbart, 2000; Kimmelmeier, 2004). Research in marketing using dilution theory from the social judgment literature is scarce, with only three studies investigating the impact of irrelevant information on consumer brand judgments (Gierl and Grossman, 2008; Meyvis and Janiszewski, 2002; Ilicic and Webster, 2012). According to the dilution effect, the irrelevant brand information provided by a celebrity endorser in combination with relevant endorsed brand information may cause consumer evaluations to become less positive.

As celebrities are famous and easily recognised, the pairing of a celebrity with a brand in an advertisement automatically is more likely to draw consumer attention to the communication, providing a better opportunity in which consumers attend to the information on display. Research in advertising to date commonly uses consumer evaluations of attitude towards the advertisement following exposure to and processing of advertising stimuli (e.g. Wang and Calder, 2009; Pieters, Wedel and Batra, 2010). Such attitudes can be stable and

enduring (Mitchell and Olson, 1981). The sustainable nature of attitudes can lead to behavioral outcomes, such as purchase intention and brand advocacy (e.g. Mitchell & Olson, 1981; Brown & Stayman, 1992; MacInnis and Park, 2006). As attitudes are useful predictors of consumer behavior towards a product or brand (Fishbein and Ajzen, 1975; Mitchell and Olson, 1981), brands must ensure they avoid attitude dilution.

Interestingly, little research specifically investigates the executional aspects of advertisements that feature celebrities. Advertising research instead has focused on the effectiveness of celebrities as direct spokespeople, who provide relevant information about the endorsed brand through their consistent brand image and by clearly endorsing the brand. We argue that advertisements with mismatched, incongruent and irrelevant, celebrities focussing on the celebrities' own talents provide consumers with irrelevant information about the endorsed brand. The aim of this study is to examine the extent to which irrelevant information, provided by a celebrity endorser, negatively affects consumer evaluations of advertisements. Specifically, we examine the role of celebrity and endorsed brand match-up on consumer attitudes towards the advertisement and propose the following hypotheses:

Hypothesis 1: Consumers report a) the most positive attitudes towards the advertisement when exposed to relevant information only, b) weaker attitudes when exposed a combination of relevant plus irrelevant information and c) the least positive attitudes when exposed to irrelevant information only.

Hypothesis 2: Consumers who perceive a mismatch between the celebrity and endorsed brand report less positive attitudes towards the advertisement than consumers who perceive a match.

Hypothesis 3: Consumers who perceive a match between the celebrity and the endorsed brand report more positive attitudes towards the advertisement, when exposed to an advertisement that features both relevant and irrelevant information, compared to consumers who perceive a mismatch.

3 Method

Subjects were recruited from regional areas of Australia by a research company and asked to evaluate their attitudes towards television advertisements for the Greater Building Society, a financial institution. Subjects were allocated to one of three experimental conditions: *irrelevant information*, *relevant information* and a *combined relevant plus irrelevant information*. The irrelevant condition provided no information about the Greater Building Society brand and instead

featured the celebrity Jerry Seinfeld in a humorous situation. The relevant condition showed a Greater Building Society customer clearly promoting the brand with no celebrity featured. The combined relevant plus irrelevant information was a blend of the other two conditions featuring both a Greater Building Society customer and the celebrity Jerry Seinfeld.

Three hundred and fifty subjects viewed one of the three television advertisements and completed the questionnaire. In all 48.9% of the subjects were male and 51.1% were female. Subjects were largely between the ages of 35-49 and 50-64 (25.1% and 28.6%, respectively). Of the three experimental conditions 122 were assigned to the irrelevant condition, 114 to the relevant condition and 114 to the combined relevant plus irrelevant information condition. In order to categorize consumers perceptions of match-up between the celebrity and brand (match and mismatch), a median split was used.

3.1 *Measures*

Subjects evaluated their attitudes towards the advertisement using Mitchell and Olson's (1981) 5-point semantic differential scales which included four items: bad/good, dislike/like, not irritating/irritating and uninteresting/interesting (Cronbach alpha= .945). Subjects also evaluated their perceptions of a match-up (both congruence and relevance) between the celebrity and brand using Till and Busler's (2000) 5-point scale which consisted of three items: does not belong with/belongs with, does not go together/goes together, does not fit together/fits together (Cronbach alpha= .984).

3.2 *Procedure*

One of the three television advertisements was shown to subjects. Subjects in the irrelevant information condition saw an advertisement with Jerry Seinfeld crawling along a desert and making no reference to the Greater Building Society brand. Subjects in the relevant information condition viewed a Greater Building Society customer in an advertisement actively discussing her positive experience with the Greater Building Society brand. The celebrity does not feature. Subjects in the combined relevant plus irrelevant information condition viewed the complete advertisement that featured both the Greater Building Society customer explicitly discussing the brand and Jerry Seinfeld crawling along the desert. All of the advertisements for each condition ran for approximately 20 seconds and displayed the Greater Building Society logo on conclusion of the advertisement. After subjects viewed their assigned advertisement, they then were asked to evaluate the advertisement. Subjects firstly were asked their attitudes towards the advertisement and then the extent to which they believe the image of Jerry

Seinfeld matches the image of the Greater Building Society brand. Table 1 presents the number of subjects per condition by their perceptions of match-up.

Table 1: Subjects by Experimental Condition

<i>Subjects</i>	<i>Irrelevant Only Condition</i>	<i>Relevant and Irrelevant Condition</i>	<i>Relevant Only Condition</i>
<i>Match-up</i>			
Mismatch	n= 68	n= 58	n= 57
Match	n= 54	n= 56	n= 57

4 Results

The univariate statistics for attitude towards the advertisement for the three conditions and perceptions of match-up are shown in Table 2. Attitude towards the advertisement is higher in the relevant only condition than in the irrelevant and relevant and irrelevant only conditions. Interestingly, when subjects perceive a match their attitude towards the advertisement is slightly higher in the irrelevant and relevant combination condition than in the relevant only condition. In each condition consistently higher scores occur when subjects see Jerry Seinfeld as a good match with the Greater Building Society.

Table 2. Means and Standard Deviations by Experimental Condition for Attitude towards the Advertisement

<i>Condition</i>	<i>Overall</i>	<i>Match</i>	<i>Mismatch</i>
Irrelevant Only	2.72 (1.11)	3.35 (.96)	2.22 (.97)
Irrelevant and Relevant	3.31 (1.07)	3.96 (.80)	2.65 (.90)
Relevant Only	3.77 (.88)	3.93 (.71)	3.60 (1.01)

Table 3 shows the two-way ANOVA results for the dependent variable, attitude towards the advertisement. Results indicate significant main effects for advertisement condition and for match-up. Post hoc comparisons using Tukey HSD in Table 4 show subjects report significant differences in advertisement attitudes between all three advertisement conditions. Overall subjects report significantly more positive attitudes for the relevant advertisement condition, weaker advertisement attitudes in the combination irrelevant and relevant condi-

tion and the weakest attitude in the irrelevant condition, providing support for Hypothesis 1.

Table 3. Main Effects and Interaction Effect

<i>Dependent Variable</i>	<i>Source</i>	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Attitude towards the Ad	Ad Condition	55.17	2	27.5	33.38	.00
	Match-up	79.71	1	79.7	96.47	.00
	Ad Condition * Match-up	15.66	2	7.83	9.478	.00

As hypothesized, a significant main effect occurs for match-up on the dependent variable, supporting Hypothesis 2. Subjects who perceive a match between the brand and celebrity report significantly more positive attitudes than those subjects who perceive a mismatch.

Table 4. Post Hoc Comparisons

<i>Dependent Variable</i>	<i>Conditions</i>		<i>Mean Diff.</i>	<i>Std. Error</i>	<i>Sig.</i>	
Attitude towards the Ad	Overall	Irrelevant	Relevant + Irrelevant	-.56	.14	.000
		Irrelevant	Relevant	-1.03	.14	.000
		Relevant	Relevant + Irrelevant	.48	.14	.002
	Mis-match	Irrelevant	Relevant + Irrelevant	-.40	.17	.059
		Irrelevant	Relevant	-1.36	.17	.000
		Relevant	Relevant + Irrelevant	.96	.18	.000
	Match	Irrelevant	Relevant + Irrelevant	-.61	.16	.000
		Irrelevant	Relevant	-.58	.15	.001
		Relevant	Relevant + Irrelevant	-.03	.15	.979

Post hoc comparisons (Table 4) show subjects report significantly more positive attitude towards the advertisement for the relevant advertisement condition compared to the irrelevant advertisement condition. For those subjects who perceive a match, their attitude towards the advertisement is also significantly more positive for the combination advertisement condition compared to the irrelevant condition but does not differ between the relevant and combination advertisement condition ($p=0.979$). For those who perceive a mismatch, however, their attitude towards the advertisement is significantly more positive for the relevant advertisement condition compared to the combination condition but

does not significantly differ between the combination and irrelevant advertisement condition ($p=0.059$).

A significant interaction effect also exists, as highlighted in Figure 1. Subjects who perceive a mismatch between the brand and celebrity report attitude towards the advertisement as hypothesized. These subjects report significantly more positive attitudes for the relevant advertisement condition compared to the combination and irrelevant conditions. Yet, Figure 1 reveals that when subjects perceive a match-up between the brand and celebrity, they report strong positive attitude towards the advertisement in both the relevant advertisement condition and the combination condition, supporting Hypothesis 3.

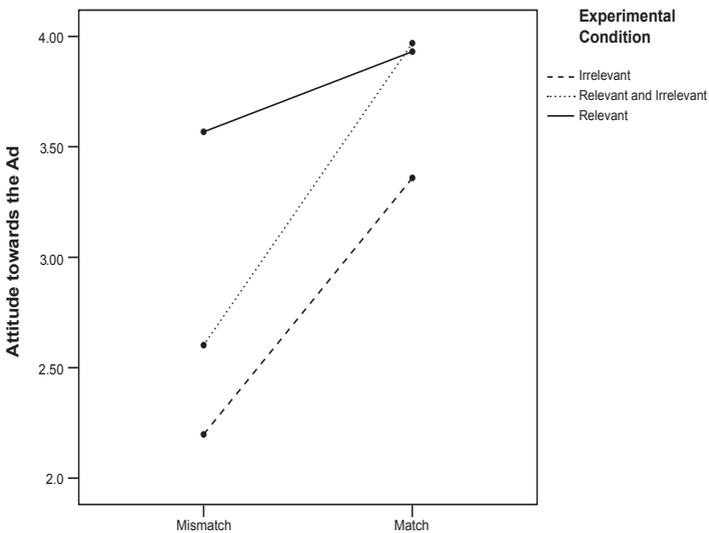


Figure 1. Attitude towards the Advertisement by Match-Up

5 Discussion

Findings from this study are consistent with the match-up hypothesis posited in the celebrity endorsement literature. Results identify that consumer advertisement evaluations are less positive when they perceive a mismatch between the celebrity and brand (Kamins, 1990; Kamins and Gupta, 1994; Till and Busler, 1998). Alternatively, consumers have superior attitudes towards the advertisement when they perceive a high degree of match-up between the celebrity and brand.

The results of this study also show that irrelevant information provided by a celebrity endorser affects consumer attitudes towards advertisements. In other words, consumers' attitudes towards advertisements are influenced by celebrities

who act as indirect spokespeople in advertisements, where they do not provide information about the endorsed brand. Previous research in celebrity endorsement focuses on celebrities providing relevant information regarding the endorsed brand (Kamins, 1990; Kamins and Gupta, 1994; Till and Busler, 1998, 2000; Till et al., 2008). Findings from this study suggest that the irrelevancy of celebrity information presented in an advertisement is also important. Consumers' attitudes towards advertisements are significantly affected by irrelevant brand information provided by a celebrity within an advertisement. Findings from this study show consumers who perceive a match-up between the celebrity and brand report enhanced advertisement attitudes when the celebrity and brand feature together providing both irrelevant and relevant information with advertisement attitude just as strong as when the brand features alone delivering only relevant information. On the other hand, consumers who perceive a mismatch report less positive attitudes towards the advertisement in the combined condition when the celebrity features. As such, this study provides additional insights into the concept of match-up as consumer beliefs in the celebrity providing consistent information is strengthened when they perceive a match-up and view an advertisement that features a combination of the celebrity and brand, both relevant and irrelevant information.

With the use of celebrities providing irrelevant brand information in advertisements becoming an increasingly popular advertising execution tactic, it is particularly important to investigate the reasons for this shift in marketing communications. Results of this study identify that placing both a celebrity and brand together in an advertisement can have a positive influence on advertisement attitudes. Research is yet to explore the reciprocal effect of endorsement relationships on consumer judgments of the celebrity. There is more and more skepticism relating to the reasons why celebrities choose to lend their name and image to particular brands through endorsement deals (Bailey, 2007). This skepticism can be attributed to celebrities endorsing not one but many brands simultaneously. For example, in Australia we see the famous Victoria's Secret supermodel, Miranda Kerr, as an ambassador for Qantas airline, the spokesperson for David Jones department store, an endorser for Clear shampoo and the face of her own skin care range, KORA. As such, celebrities must manage their endorsements by being actively involved in the strategic executions of the advertisements in which they feature.

Acting as an indirect spokesperson may be a strategic tool in which celebrities are able to evade consumer skepticism and maintain their own image and persona. Although this study explores irrelevant information provided by a celebrity on consumer advertisement attitudes, future research should investigate the effect it has on consumer brand attitudes and purchase intentions. In addition, research should investigate the reciprocal effect of endorsements on consu-

mer evaluations of the celebrity. Future research also should explore celebrities that provide moderately relevant information, making an implicit endorsement for the brand. For example, Jerry Seinfeld in recent advertisements for the Greater Building Society cuts down vegetation in a jungle (irrelevant information) whilst stating that he is making room for new branches (implicit information). Here, Seinfeld is making an implicit endorsement for the brand by referring to an aspect of the brand's product.

Since we explore the irrelevancy of information presented by a celebrity endorser in television advertisements, future research should be extended to investigate whether these effects are transferable to other mediums, such as print. Print advertisements may feature celebrities who provide irrelevant brand information and only relevant celebrity information, such as many fragrance advertisements that feature the celebrity only, providing no verbal endorsement of the brand nor featured holding the branded product. For example, the Gucci by Gucci fragrance advertisements present James Franco's face only with the bottle presented at the bottom of the advertisement. Although James Franco may provide relevant brand information by conveying a sexy and modern image, congruent with the Gucci brand, he provides irrelevant information by not explicitly advocating the brand or holding the branded product in the advertisement.

Interestingly, we are also seeing a shift in celebrities endorsing products and brands they do not consume. For example, Brad Pitt has recently signed a contract to endorse Chanel No. 5, a classic female fragrance targeted to a female audience. Although his sensual, mature and classic image is a perfect match for the Chanel brand, Brad Pitt himself is not featured holding the product and arguably does not use it in his everyday life. As such, Brad Pitt in this endorsement deal may in fact be perceived as providing both relevant and irrelevant information to consumers. Here, the incongruity of using a male celebrity endorser is a strategic and novel way to capture the attention and arouse desire in potential female consumers. Research is yet to examine whether the use of this tactic will continue and most importantly, whether it is an effective technique to employ.

Celebrities continue to act as powerful opinion leaders strongly influencing consumer perceptions and judgments. The increasingly important role of celebrities in our current celebrity dominated culture provides a rich area for research. The current research is narrow, focussing on consumers' explicit advertisement attitudes. Future research needs to look at the reciprocal effect of the endorsement situation for celebrity brands, include multiple advertising mediums and explore implicit consumer evaluations eliciting automatic attitudes (Petty, Fazio, and Brinol, 2009).

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The Importance of the Social Context on the Impact of Product Placements

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1 Introduction

Product placement involves “the purposeful incorporation of a brand into an entertainment vehicle” (Russell and Belch, 2005), which includes television programs, movies, radio shows, songs and music videos, video games, plays, and even novels. Research on the impact of product placement on consumers has grown exponentially since the early 2000’s (Bressoud, Lehu, and Russell, 2010). The existing body of research offers empirical evidence of the effects of product placements on brand recall and recognition, and attitudes toward the brands placed in the content of entertainment (Auty and Lewis, 2004; Babin and Carder, 1996; Russell, 2002).

Surprisingly, however, the extant research has focused squarely on individual factors and processes (Cowley and Barron, 2008; Russell, Norman, and Heckler, 2004) and largely ignored the social environment of consumption of the entertainment content in which the placements are embedded. Yet, clearly, entertainment is often consumed socially, either because people experience it in the company of others or because the entertainment content itself serves as a basis for word-of-mouth discussions and community building (Kozinets, 2001; Schau, Muñiz, and Arnould, 2009). This chapter documents this important role of the social context on product placement by reviewing recent empirical evidence from the authors’ program of research on the ‘Perceived Influence of TV Series on Others,’ or PITSO (Russell and Noguti, 2012). As documented in this chapter, this program of research shows that PITSO is a significant driver of the influence of product placements in TV series on viewers, beyond the individual effects already documented. The chapter offers an agenda for further studying socially related factors in product placement research.

2 The Social Environment of Entertainment Consumption

Entertainment products are often consumed collectively and/or their meanings are constructed collectively (Ritson and Elliott, 1999; Rose and Wood, 2005). Television, in particular, is often a social activity, marked by practices and rituals of co-viewing. Television content is frequently a focal point of attention in

social life, where co-viewing activities fluctuate between companionable silence and involvement in the narrative to lively gossip and debate (Lull, 1980). Group viewing, in private and public spheres, such as a pub or tavern, fuels social interactions, discussion and interpretation of content, and encourages the development of 'pseudo-relationships' with characters (May, 1999). Television series' constantly evolving narratives and characters stimulate social interaction and meaning construction beyond the actual viewing, sometimes into consumption communities that often form around them. In those communities, the series' textual materials become anchors for socially enacted linkages that often extend beyond mere discussions into practices of creative production (Kozinets, 2001; Schau et al., 2009).

The world created by television is a source of shared cultural references, even with commercial material such as advertisements (Ritson and Elliott, 1999). In the field of cultural studies, television programs help communicate, reinforce, or sometimes change cultural identity, at the local, national, or global levels (Thornham and Purvis, 2005). Popular TV series offer a cultural repertoire of humor, lifestyles, and references, including those from product placements, that permeate a culture and is incorporated in the communication of shared knowledge by the audience, from preschool children to adults. Novelas (i.e., soap operas), for instance, are inherently part of the cultural fabric of Latin culture (La Pastina, 2001).

3 Theoretical Framework for Testing the Effects of the Social Context in Product Placement Research

The social component of TV and other media is inherent in theories such as McCracken's (1989) meaning transfer model and Ritson and Elliott's (1999) model of the social uses of advertising. These theories imply that people's interactions with TV series and their content are likely to affect and be affected by other people's responses to these series. Yet, product placement research to date has not incorporated this notion, having focused instead on individual processes. An exception to this is the authors' program of research on the perceived influence of TV series on others, or PITSO (Russell and Noguti, 2012), which will be reviewed in the next section.

The theoretical model for the social-contextual effects of product placement draws from three bodies of literature: the body of research on product placement effects, the extant literature on normative influences, and communications-based research on the so-called model of presumed influence on others. On the whole, what is important is the notion of norms related to the influence of entertainment. Norms refer to what others are perceived to think and do and markedly influence one's own behavior (see Moscovici, 1985 for an overview). Norms

can be witnessed through direct observation or communicated via messages that explicitly describe norms (Goldstein, Cialdini, and Griskevicius, 2008). They are not always accurate, not always acknowledged consciously (Nolan et al., 2008), and most of all, they are malleable (Ross and Fletcher, 1985).

Much research on norms has focused on mass media. Several studies within the field of communications research have documented the indirect effect that people's perceptions of the media's influence on their peers have on their own attitudes and behaviors, explaining this process through the IPIM - Influence of Presumed Influence Model (Gunther et al., 2006; Gunther and Storey, 2003). The IPIM views media influences as containing two stages. The first stage, sometimes referred to as the third person effect (Davison, 1983), is based on the premise that individuals estimate that the media affect others (i.e., third persons) more than it affects themselves. The second stage captures the fact that these perceptions of the media's influence on others in turn affect the perceiver's own behavior. This effect has been empirically tested in the realm of political behavior, finding for instance, that people are more likely to vote when they perceive others as ignorant and unduly influenced by political marketing (Golan, Banning, and Lundy, 2008).

Besides these effects documented when media are conceptualized at the broad level, a couple of studies have documented similar effects at the program level, which is more directly relevant to product placement effects. For instance, significant presumed influence effects resulted from a dramatized educational radio serial aimed at improving health workers' interpersonal communication, counseling skills and technical knowledge: the more people perceived that others were influenced by the serial, the more their own behavior changed, even if they themselves had had little exposure to the program (Boulay, Storey, and Sood, 2002; Storey et al., 1999).

Given its direct relevance to the context of product placement in entertainment content because of its social nature, this IPIM model is a main pillar in the authors' program of research (Russell and Noguti, 2012) reviewed in the next section.

4 Empirical Evidence of the Impact of PITSO: Results from Three Studies

PITSO, the perceived influence of television series on others, captures the degree to which other people are perceived as modeling their behaviors after the series' characters, imitating what these characters do or say, or trying to copy the lifestyles and behaviors displayed in the series. It is in direct parallel to the construct of connectedness, which refers to those modeling influences at the individual level (Russell et al., 2004). PITSO can vary in valence, with positive

PITSO representing the perception that others model behaviors after what they see in television series, imitate characters' behaviors or try to copy their lifestyles and fashion; or it can be negative, referring to the opposite perceptions: that people do not model/imitate/copy the TV characters' behaviors. Many programs elicit positive PITSO in large audiences. For example, the TV series *Friends* has enjoyed years of fan-based following with people copying Rachel (Jennifer Aniston)'s haircuts and putting a gold frame around the peep hole on the door. The love for this series was so widespread that it survives to this day, years after its last episode aired. So a well-accepted, almost universally loved program like *Friends* would likely have positive PITSO: people, whether they watch it or not, whether they are huge fans of it or not, perceive that many people are positively influenced by it. In contrast, some programs may elicit primarily negative PITSO for a majority of people. For example, *The Shire* was an Australian TV series depicting life in one of Sydney's suburbs. The mockery tone of the narrative set the audience to a general negative attitude toward the show, which fueled a somewhat negative PITSO around it. PITSOs therefore vary in valence across shows or even across members of the audience as some series, such as *The Simpsons* cartoon, can themselves trigger a range of PITSOs.

In line with the IPIM, we posit that the perceptions of TV series' influence on others are an influential force on the impact of the series, particularly the product placements therein. This section reviews the main findings from three studies in the program of research on PITSO. The studies show that positive PITSO leads to higher willingness to try/buy placed products than negative PITSO. They also document several moderators of this effect, related to individual differences and contextual influences.

4.1 *Study 1: The Effect of PITSO on purchase intentions*

To assess the malleability of PITSO and its effects on purchase intentions, we conducted an experiment in which participants were exposed to either positive or negative PITSO about a TV series they watch and their intentions to purchase products placed within those series were then measured.

4.1.1 Method

One hundred and twenty six students from a large US university participated in a one-hour experiment for course credit. The experiment contained three sections, presented as separate studies. In the first section, participants were asked which of four TV series they were most familiar with and the questionnaire focused on the series selected. The four series were chosen based on the audience ratings for the 18-34 age group and the presence of product placements in the series. Two alcohol brands were selected that had appeared in each of those series. In this

section, participants indicated their attitude and connectedness with the series (Russell et al., 2004).

Participants were then randomly assigned to a positive or negative condition and exposed to a statement containing the PITSO manipulation and an embedded verbal mention of the two focal brands. The manipulation was presented as a cover story describing the findings of a study conducted at another university in their state and statistics were reported to show that either a small number or a large number of those surveyed were influenced by the series. This information was followed by a measure of PITSO, using items from the two connectedness factors (Russell et al., 2004) that emphasize the influence received from TV series: imitation and modeling.

Section 2 of the study was a separate, unrelated 15-minute study. The final section included a purchase intention (PI) measure: participants indicated how likely they were to purchase each of a series of brands in the future, including the two focal brands mentioned in the experimental manipulation (in section 1) and two control brands. Demographic information was collected and participants were debriefed.

4.1.2 Results

The experiment shows that PITSO can be manipulated: those exposed to the positive PITSO manipulation had greater estimates of the percentage of one's peers who are influenced by the series than in the negative PITSO condition. In addition, PITSO had a significant impact on purchase intentions for the focal brands but no impact on the non-focal brands.

4.1.3 Discussion

This first study provided evidence that PITSO is malleable and that, in the context of a TV series one already watches, it is significantly and positively related to intentions to purchase brands placed in the series. This effect emerged even when controlling for the already documented effects of individual connectedness. Thus, we find evidence that, the more one perceives that others are influenced by a TV series one watches, the more likely one is to want to try the brands placed in this series, regardless of one's own level of individual connectedness to the series.

4.2 *Study 2: Individual Difference Moderators of the Effect of PITSO on Purchase Intentions*

Study 2 builds on the results of Study 1 by showing that the social context, as represented by PITSO, does not necessarily impact everyone in the same way. Some people are particularly responsive to what they perceive others think or

do. A well-established individual difference measure that captures one such general trait is susceptibility to normative influences (SNI) (Bearden, Netemeyer, and Teel, 1989). The term normative refers to social norms. Those under normative influence tend to conform to the expectations of others (Burnkrant and Cousineau, 1975) either to achieve rewards or avoid punishments or to boost one's self-concept through identification with others. As an individual trait, people differ in how much they follow others. Study 2 shows that PITSO is especially impactful for those who are highly susceptible to others' influences.

4.2.1 Method

One hundred and twenty nine members of the marketing subject pool at a US university participated in a lab experiment. The experiment consisted of four sections. The first section was presented as a study to gather feedback on the viability of a New Zealand series in the US market. Participants were randomly assigned to one of three conditions. In the control condition, they were told that a group of college students participated in an in-depth evaluation of the series and that they were asked questions about the series (e.g., whether they would be interested in things that appear in the series, even the New Zealand brands that are featured, such as local music bands, and local drinks). In the positive condition, they were further told that the results showed that high percentages of these students were favorable to the series (e.g., "72% would be interested in things that appear in the series"). The negative condition provided the same percentages but all sentences were written in the negative form (e.g., "would not be interested"). Then, all participants watched the trailer of the series, a 3-minute segment where the protagonists drink the focal brands. Participants then indicated their reactions to the show, including purchase intention measures for each of the brands. They were then asked a number of questions about PITSO, e.g., to estimate what percentage of the students taking part in this study at (their) university would imitate what they see on the series. The final section included a susceptibility to normative influence (SNI) scale (Bearden et al. 1989), and demographic information (age and gender). Finally, familiarity with the series and the two focal brands in section 1 were checked and participants were debriefed.

4.2.2 Results

Again, the study provides evidence that PITSO can be manipulated. PITSO percentages were highest in the positive condition and lowest in the negative condition. Analyses showed that the effect of the PITSO manipulations on purchase intentions for the two focal brands were significantly different from the control condition when SNI was high but not when SNI was low. In other words,

PITSO only impacted purchase intentions amongst those members of the audience who were highly susceptible to normative influences, as predicted.

4.2.3 Discussion

Study 2 offers evidence that the PITSO effect documented in Study 1 is moderated by individual differences in susceptibility to interpersonal influence. Willingness to try and buy the alcohol products presented in the series depended on SNI: the increase / decrease in willingness to try the brands when the participants were informed that a high percentage of other participants was positively / negatively influenced by the series was observed only amongst high SNI participants.

4.3 *Study 3: Further Moderating Effects (Contextual)*

Study 3 documents an additional moderator of the effect of the social context on the behavioral impact (positive or negative) of product placements. There is a multitude of situations that increase the likelihood that people will follow others. People with low group acceptance tend to conform more when they have to respond in public vs. in private (Menzel, 1957). Higher conformity also occurs when an individual's initial opinion disagrees more with the group's opinion (Goldberg, 1954; Zimbardo, 1960). People also demonstrate more conformity when in a state of mind that is psychologically distant and abstract as compared to concrete (Ledgerwood and Callahan, 2012). In our research, the effect of PITSO is predicted to be itself affected by a contextual factor: whether consumers are primed for conformity (vs. non-conformity). Priming can activate social behavior without conscious thought (Epley and Gilovich, 1999). As such, people conform more in environments where the conformity construct is activated compared to those of non-conformity.

This moderating effect of conformity priming is itself contingent upon individual trait reactance levels. Psychological reactance was first conceptualized as a motivational state that occurred when one's freedom is threatened. However, subsequent research documented that individuals differ in the degree to which they naturally exhibit such tendencies, thus supporting the view that reactance is an individual trait that reflects a trans-situational propensity (Dowd et al., 1988; Hong, 1992; Hong and Faedda, 1996; Hong and Page, 1989). The reactance trait reflects a general tendency to engage in contrary behaviors in response to a threat, whether perceived or real, to one's freedom of choice (Brehm, 1966; Brehm and Brehm, 1981; Wright and Brehm, 1982). High trait reactance individuals tend to feel that information presented as an attempt to persuade them represents an external imposition to think and behave in a certain manner, and thus they resist whatever is being suggested (Quick, Scott, and Ledbetter, 2011).

In contrast, low reactance individuals tend to go along with the goals of those who are close to them, such as their significant other's (Chartrand, Dalton, and Fitzsimons, 2007). Therefore, low reactance individuals are more likely to be affected by PITSO when primed for conformity. In other words, Study 3 posits a three-way interaction between PITSO, conformity priming, and reactance on the impact of product placements on purchase intentions.

4.3.1 Method

One hundred and sixteen students at an Australian university participated online in a series of independent, unrelated studies. In section 1, participants completed a scrambled sentences task designed to prime conformity or non-conformity. Following Epley and Gilovich (1999), two conditions were created: one conformity condition including words such as follow, obey, agree, etc., and one non-conformity condition including words such as deviate, disobey, disagree, etc.

In section 2, a positive and a negative PITSO condition were created. The manipulation was embedded in a news article about Generation Y, and the participants were asked to evaluate its style and layout. The article introduced a university student called Alex as representative of Generation Y and also included illustrative photos showing scenes of the TV series *Entourage*, including two placed brands. PITSO could be inferred to be either the positive or negative statements in the article, for example, stating that "Alex imitates [does not imitate], and even buys [does not buy] things that appear in *Entourage*." In line with the cover story, eight questions followed regarding the writing style, layout, placement of the photos, color scheme, etc.

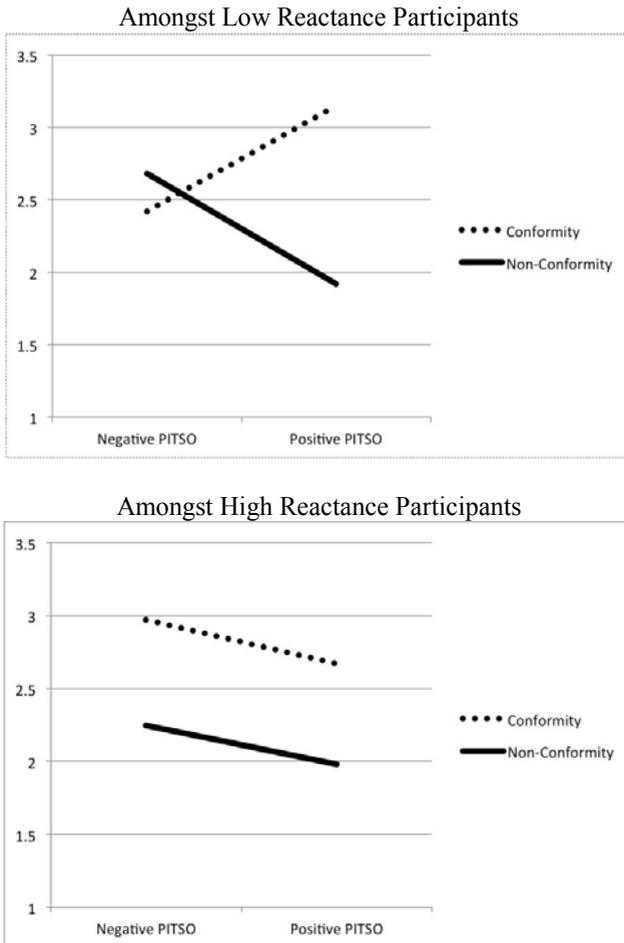
In section 3, participants indicated how likely they were to purchase each of twelve brands in the future. The list included the two placed brands. Participants then indicated their level of familiarity with *Entourage*. Participants then filled out a psychological reactance scale (Hong, 1992; Hong and Page, 1989). Finally, prior consumption of focal brands and demographic information were collected.

4.3.2 Results

Purchase intentions for the two placed brands were analyzed in a repeated-measures mixed model with brand as a within-subjects factor, and, as between-subjects factors, PITSO valence and conformity manipulations and their interaction, as well as reactance and respective interactions. The results revealed a three-way interaction between PITSO, conformity, and reactance. As seen in Figure 1, the pattern of effects for low reactance participants reveals a cross-over interaction: positive PITSO generated higher PIs than negative PITSO for those

participants primed for conformity but this result was not seen for those participants primed for non-conformity. In contrast, amongst high reactance participants, conformity priming did not interact with PITSO. Thus, as predicted, when consumers are low in trait reactance, the priming of conformity activates a response in line with what others are perceived to do (positive PITSO) or what others are perceived not to do (negative PITSO).

Figure 1: Purchase Intentions of Placed Brands in Study 3: Effects of Conformity Priming X PITSO Valence By Reactance Levels



NOTE: DV = mean PIs of the two placed brands

4.3.3 Discussion

Study 3 shows that PITSO affects consumers' intentions to buy brands placed in a TV series differently when consumers are primed for conformity or for non-conformity and depending on their level of psychological trait reactance. This novel finding shows that trait reactance predisposes people to resist even non-conscious attempts at priming conformity. Primed for conformity, low reactance consumers are more likely to follow a peer who is influenced by the TV series, as evidenced by a greater desire to purchase placed brands, but, primed for non-conformity, this pattern dissipates.

4.4 *Conclusions from Existing PITSO Research*

The PITSO studies consistently show that the extent to which others are perceived as influenced by a TV series affects consumers' intentions to purchase brands placed in the series. This effect is bounded by individual differences in susceptibility to influence and contextual effects that prime conformity: some individuals are more prone to being influenced by PITSO, and individual differences and contextual variables together moderate PITSO effects. But, the main finding from this set of studies is clearly that the social context of product placement matters: consumers' willingness to purchase products depicted in TV series is affected by the extent to which peers are perceived to be influenced by the series.

5 Expanding Research on the Social Context of Product Placement Effects

This final section draws upon the basic finding revealed in the PITSO research to establish an agenda for further research on the social context of product placement effects. Three axes for further research are developed: other product categories and behaviors, other media in which products are placed, and other ways in which norms/social-contextual information is learned or communicated.

5.1 *Other Product Categories*

The studies reported in the above section involved primarily alcohol brand placements (Russell and Noguti, 2012). This was motivated by alcohol's constant presence in the content of TV series (Russell and Russell, 2009) and the policy implications of such placements. Alcohol, as a product category, is highly subject to interpersonal influences and imitative behavior (Larsen et al., 2010; Morgan and Grube, 1991). But there are many other product categories in which behavior is heavily affected by the social environment. Luxury product categories that are consumed in public are the most subjected to social influences

(Bearden and Etzel, 1982). Hence, the effect of the social context in product placement should be stronger for product categories and behaviors consumed for social reasons and less for those motivated by utilitarian goals. Further, there are product categories for which quality is highly dependent on social norms because they are high in symbolic meaning. One such category is fashion, where a given style's desirability depends on what society views as desirable in a given season, place, occasion. Hence, the very meaning of a fashion product depends on social perceptions. Therefore, fashion and related product categories such as furniture, decoration, and other visible services such as travel or hair styling are likely to be strongly subject to social-contextual effects. This implies that PITSO should be especially relevant in these cases.

Another area important in terms of public health implications is the food and drink industries in general. Unhealthy foods and drinks abound in the content of TV programs (Story and Faulkner, 1990). Their presence in this influential context may be a contributing factor to the obesity epidemic. As a determinant factor in the effectiveness of product placements, PITSO can work both to boost and/or to restrain the behavioral impacts of these images. When a general positive PITSO predominates around placements of such negative consumption, people are likely to consume more of them. But educational, social marketing campaigns may help create negative PITSO to counter-attack this effect. For example, as our research suggests, highlighting the preferences of a single community member (such as Alex in Study 3) as representative of a relevant reference group (Generation Y; university students), may help un-do the effects of these unhealthy placements if the chosen representative disapproves of behaviors and connections with such products presented in the show. Alternatively, it may be even more desirable to have TV series' characters display aversion to such consumption. In this case, positive PITSO would reinforce the desired effect which is the reduction in the consumption of these foods. If a beloved character keeps health habits such as preferring fresh food for lunch and dinner instead of processed food or fast food options, positive PITSO can further boost the positive influence these images would have on the audience.

5.2 *Other Media*

Product placement continues to expand to other media beyond radio, TV, and film. While product placement has been used for many years in static form, one notable expansion is that it can now be done dynamically, i.e., tailored to fit the profile of the audience member (Turner, Scheller-Wolf, and Tayur, 2011). Another development in the product placement domain is advertainment, where the content of the entertainment is designed around the brand it features, for instance advergaming, where a video game is created around a brand (Winkler and Buckner, 2006). Studies have found that such advertainment contexts may be an

even more receptive environment than traditional entertainment content for product placement (Winkler and Buckner, 2006). This may also apply to PITSO effects. The social context is likely to be particularly salient in gaming, especially with multiplayer games. Social motivations, which involve the desire to socialize, form relationships, and build teamwork, are one of the key drivers for people to play games (Yee, 2006). People involved in massively multiplayer online role-playing games tend to spend more hours playing and report making more online friends, while they also get worse health and social life than people playing more traditional games such as a video game on the console (Smyth, 2007). This may be exacerbated for young gamers who are more likely to sacrifice work and education to play longer hours (Griffiths, Davies, and Chappell, 2004). As such, the influence of perceived influence of the game and its contents in this highly social medium may be particularly strong, leading to a potentially large role for PITSO in understanding placement effectiveness.

Product placements are also increasingly present in music videos, another medium highly subject to social influences (Schemer et al., 2008). Here, the link of placed products with celebrities brings up other facets of the social context. Celebrities are trendsetters as a function of their high visibility and identification value for many consumers. The power they have to influence others is not only direct, but likely to also happen indirectly through social interactions. Discussions and gossip around the lives of celebrities is commonly observed in social gatherings. Analogous to discussions about TV characters, such conversations are likely to color perceptions of how others relate to the music videos these celebrities appear in. Parallel to PITSO, these perceptions should be highly relevant to predict and understand the effects of products placed therein.

Finally, mobile viewing (on smart phones or tablets) continues to alter entertainment consuming habits, especially amongst youth. About 30 million Americans watch TV/videos on their mobile phones (Nielsen, 2011), while teens make up 20% of the mobile video audience and watch more than the average user (Nielsen, 2009). This trend increases the likelihood of social-contextual effects of product placement. Mobile entertainment is often socially shared, and the social-contextual environment becomes all the more important.

5.3 Other Ways of Communicating “Norms”

Audiences have many ways of forming their perceptions regarding the influence of entertainment on others. With social media, this is particularly easy. Through social media, at very low cost people enlarge the number of others with whom they get into contact. Interacting with a large number of others increases the chances that people learn perceptions these others have with respect to liking and buying placed products and of course to liking and communicating their influence from TV series and other entertainment content. The increasing role

social media plays in people's lives further signals the need to incorporate the social-contextual effects of factors such as PITSO in the study of product placement effects.

6 Conclusion

This chapter pushes the agenda for research on product placement to incorporate the currently understudied social context. It gives primary directions for future research and offers a number of suggestions regarding potential effects that are likely to exist in this area. Empirical investigation of these ideas should provide the field with valuable contribution to the understanding of product placements' ever growing influences.

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Is Website Interactivity Always Beneficial? An Elaboration Likelihood Model Approach

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1 Introduction

In the evolving arena of mediated communication technology such as the Internet, interactivity becomes one of the most valuable features because it enables two-way or multiple communications. Interactivity distinguishes traditional media (TV, radio) from new or digital ones (Internet). Most importantly, it appears that interactive communication generates not only unprecedented behaviors but also new models of consumer behavior.

Nowadays companies reallocate their promotion resources from conventional media to the more interactive ones such as Internet advertising. Despite the central role of interactivity in the online media, the available literature provides conflicting findings. A stream of research supports the view that increased levels of interactivity in a web environment are positively related to effective advertising (Sicilia, Ruiz and Munuera, 2005; Sundar and Kim, 2005). However, another stream of studies posits that enhanced levels of interactivity are associated with negative effects on the online communication process such as limited information processing (Bezjian-Avery, Calder and Iacobucci, 1998; Sohn, Ci and Lee, 2007) Therefore, the purpose of this study is to shed light on the above discrepancies and clarify the role of interactivity on the effectiveness of website advertising. This investigation synthesizes the emerging Internet related and marketing literature in an effort to understand the way interactivity impacts advertising processing. Then, utilizing the Elaboration Likelihood Model (ELM) as its foundation, an experimental study is employed aiming at examining the influence of various interactivity levels (high, medium, low) on website advertising. Advertising effectiveness is expressed as the number and nature of thoughts elicited as well as the attitude towards the website and the intentions to revisit the website.

2 Conceptual Framework and Study Hypotheses

2.1 *Elaboration Likelihood Model (ELM)*

The ELM (Petty and Cacioppo, 1981) has been proposed as a framework for conceptualizing persuasion and attitude formation related to products and services. As a dual route model, it posits an elaborative continuum that reflects the gradual degrees of elaborative information-processing activity.

At the high end of this continuum is the central route. The critical feature of this route to persuasion is that attitude change occurs due to the cognitive effort to process the provided information. Consumers employ the central route when they have both the “motivation” and the “ability” to form vertical and rational opinion toward an object or an issue. The resulting attitude change is likely to be more adaptive, relatively enduring, predictive of future behavior, and more stable over time (Ruckert and Petty, 2004).

At the low end of this continuum is the peripheral route. When people lack either motivation or ability to process the provided information, they tend to use the peripheral route. Under this route attitude change occurs via the use of negative or positive peripheral cues (Petty et al., 1983). The resulting attitude tends to be less permanent and predictive of future behavior (Petty and Cacioppo, 1981).

2.2 *Interactivity*

“Interactivity” constitutes a key element that differentiates new media from the conventional ones. It has been defined as “*the immediately iterative process by which customers’ needs and desires are uncovered, met, modified, and satisfied by the providing firm*” (Bezjian-Avery et al. 1998, p. 23). Interactivity has three dimensions. The first is that interactivity enables users with “two-way communication” including feedback forms and chat rooms. The second has to do with time and it is known as “synchronicity”. The third dimension refers to “active control” which is facilitated by a number of navigational tools (such as hyperlinks, site maps and customization) (Voorveld, Neijens and Smit, 2011).

A growing body of empirical research considers that increased levels of interactivity on a website have the potential of generating effective communication outcomes (e.g. Coyle and Thorson, 2001). Thus, it has been proposed that highly interactive websites lead to more information processing (Sicilia et al., 2005). Interactive websites also provide consumers with the ability to organize information in such a way that facilitates cognitive processes (Widing and Talarzyk, 1993). Consumers are able to select and organize the presentation of the information (Rodgers and Thorson, 2000). In addition, a number of researchers have highlighted the low effectiveness of non-interactive websites (Cho and Leckenby, 1999; Sicilia et al., 2005). In particular, empirical evidence

reinforces the notion that non-interactive websites lead consumers to process the provided information to a lesser extent as compared to interactive ones (Sicilia et al., 2005).

However, another group of researchers argue that increased levels of interactivity in the web environment interrupt the persuasion process, particularly when the advertising message is visually complicated (Bezjian-Avery et al., 1998) and erode the quality of visitors' decision (Sohn et al., 2007). In this case, interactivity may be considered as an element of the website interface that impairs and interrupts any cognitive effort.

2.3 *Study Hypotheses*

The debated effectiveness of increased interactivity levels in combination and the inconclusive use of the low interactivity stimulate the investigation of the medium interactive websites and their efficiency. A medium interactive website appears to provide a combination of the main characteristics of a high and a low interactive website. It allows consumers to process the information at their own time and pace and provides the ability to organize the flow of information. In addition, a number of distracting elements, available on highly interactive websites, do not perform on the medium ones. Only a limited number of researchers have inquired into the effects of the medium interactive websites but without remarkable findings (Coyle and Thorson, 2001; Sohn et al., 2007).

It appears that a medium interactive website stimulates an individual to process centrally the provided information. Consumers employ the central route of persuasion in an attempt to determine the central merits of the product under consideration. In such a situation, consumers will evaluate each piece of available information stemmed from the source (Petty and Cacioppo, 1986). An important aspect of the central route is the number of the total thoughts generated by the viewer (Ruckel, Petty and Priester, cited by Tellis and Ambler, 2007). In relation to website advertising, the generated thoughts are with regard to the website and the advertised product. In the light of the above discussion, we hypothesize that:

Hypothesis 1: Consumers exposed to a medium interactive website will produce a greater number of (i) website and (ii) product-oriented thoughts as compared to consumers exposed to (a) highly and (b) low interactive websites.

A large amount of thoughts elicited after navigating a website does not always lead to an effective communication outcome since thoughts can be classified as positive (favorable), neutral or negative (unfavorable). Thus, if consumers elicit predominately favorable thoughts as a result of information processing, then a positive attitude will be formulated; if information process leads to predominately unfavorable thoughts, then a negative attitude will follow. If consumers elicit a mix of favorable and unfavorable thoughts, then a moderate attitude will result. Thus, consumers' attitude toward the advertised brand is

shaped by the nature of their cognitive responses to the available information (Rickett et al. and Ambler, 2007). According to the ELM, persuasion can be attained when favorable thoughts are elicited by consumers (Petty and Cacioppo, 1981).

In the Internet environment, perceived interactivity is related to the overall website evaluation (Wu, 1999). Interactivity seems to affect positively the valence of such processing (Berthon, Pitt and Watson, 1996b). When consumers are exposed to interactive advertising they have control over the information exchange. This control increases their pleasure and may lead to better evaluations and responses to the website advertising (Ariely, 2000). On the one hand, it is argued that an interactive website elicits more favorable thoughts toward the website as compared to a non-interactive one (Sicilia et al., 2005). This is happening because in non-interactive websites consumers process the provided information to a lesser extent than in interactive ones (Sicilia et al., 2005). On the other hand, it is supported that increased levels of interactivity in the web environment interrupt the persuasion process, particularly when the advertising message is visually complicated (Bezjian-Avery et al., 1998). Thus, a medium level of interactivity might be better because consumers might make more favorable thoughts due to the greatest number of general thoughts. Based on these assumptions, we hypothesize that:

Hypothesis 2a: Consumers exposed to a medium interactive website will produce a greater number of favourable (i) website and (ii) product-oriented thoughts as compared to consumers exposed to (a) a highly and (b) a low interactive website.

Hypothesis 2b: Consumers exposed to the medium interactive website will formulate more positive attitude towards the website as compared to those exposed to the high and the low interactive version. Wolin, Korgaonkar and Lund (2002) signified that there is a relationship between attitudes toward web advertising and web advertising behaviour. In addition, Petty, Cacioppo and Schmann (1983) indicated that the attitude changes that results via the central route tend to be predictive of subsequent behaviour. It is expected that individual's intentions to revisit the website will be consistent with their attitude formation. Based on the aforementioned discussion the following hypothesis is formulated:

H3: Consumers exposed to the medium interactive website tend to have greater intentions to revisit the website and as compared to those exposed to a website with (i) high or (ii) low interactivity level.

3 Method

In order to test the above hypotheses, an experimental research design was employed. A fictitious brand for a laptop was designed in order to avoid the confusing effect or the pre-attitudinal effects. Undoubtedly, information is an important attribute in this type of product and it can therefore benefit from the web

(McMillan and Hwang, 2002). It is also a product in high demand by the target population (Meyers-Levy and Peracchio, 1996).

For the needs of the experiment there were designed three interactive versions (low, medium, high) of a webpage for the fictitious laptop brand. The amount of the provided information remained constant in all three versions of the website (Sicilia et al., 2005). In particular, the text employed in the three versions of the website and the images (where they were applicable) were exactly the same. The interactive features employed in every level followed the recommendations of the relevant literature. Consistent with previous studies, the level of actual interactivity was operationalized by varying the presence or absence of interactive elements. However, a central premise of the interactivity literature is the distinction between actual vs. perceived (Lee, Lee, Kim and Patricia, 2004; Yun, 2007). Actual interactivity can only provide the potential to allow interaction. However, if, for whatever reason, consumers are not using interactive features, perceived interactivity can be low. Perception of low interactivity may occur even when the structures necessary for interactivity seem to be present (McMillan, Hwang and Lee 2003). Perceived interactivity is often identified as the psychological sense experienced by the site-visitor throughout the process of interaction (Thorson and Rodgers, 2006; Wu, 2005; McMillan and Hwang, 2002).

Both actual (Pretest 1) and perceived (Pretest 2) interactivity levels were measured in order to obtain a comprehensive picture of the role of interactivity. Two experienced web-designers served as judges to verify the actual level of interactivity on each website (Pretest 1). They both confirmed that the versions of the websites with high, medium and low interactivity had the respective number of interactive elements. In pretest 2 the Measures of Perceived Interactivity (MPI) proposed by McMillan and Hwang (2002) was employed to assess the perceived level of interactivity by 60 students. Students recruited from the school of Economics (n=60) were exposed to web pages and answered the 18-items structured questionnaire. This conceptualization is important because the consumer's perception is the key to creating successful advertising communications. It is important to consider that there may be a difference between what web designers consider interactive and what consumers actually do (Voorveld et al., 2011). The results confirm that each webpage provides the appropriate level of interactivity. Otherwise, the websites would be re-designed according to remarks obtained by web-designers and students.

The experiment was conducted in the University lab. The selected sample is a convenient one that consists of students in the 3rd or 4th year of studies. The students were recruited from the Aristotle University of Thessaloniki, Greece. Two were the prerequisites of the experiment participants: they should have been Internet users and have been navigating on the Internet for at least 2 hours last week. These conditions ensured that subjects had the knowledge to operate

a personal computer (PC) and to navigate on the Internet and, and the ability to evaluate a webpage. 120 questionnaires were considered usable. Each subject was exposed to only one version of the website. Once the navigation process was completed, the participants were invited to log out and fill in the questionnaires (thought listing technique, attitude towards the website and intention to revisit the website).

According to thought listing technique, participants were asked to recall and note thoughts and images associated with the content of the website. They were expected to write down their thoughts regarding the information provided by the website they were exposed to (Wright, 1975). Two coders first classified each thought as either product or website oriented, or other matters (Mackenzie and Spreng, 1992). Coders further classified each response as favorable, unfavorable or neutral for both product and website orientation (Nordhielm, 2002). Judges agreed on 87% of thought judgments and a third judge resolved disagreements. Participants' attitude towards the website was measured with a 6-item scale (Likert type scale 1-5) developed by Chen and Wells (1999). Intention to return to the website was documented based on Kim and Biocca's (1997) scale.

4 Data Analysis

In order to test the three proposed hypotheses 40 participants were exposed to the website with the high interactivity level, 40 with the medium and 40 with the low. The three versions of the website presented exactly the same product and provided exactly the same amount of information.

Multivariate Analysis of Variance (MANOVA) and Post Hoc Tukey's HSD tests were employed in order to test the hypotheses of the study. Hypothesis H1 proposed that the medium interactivity level employed in a website will stimulate greater number of web and product related thoughts as compared to high and low interactivity levels. To test hypothesis H1, we used interactivity levels as the fixed factor with the number of (i) website -related and (ii) product -related thoughts the dependent variables. Our findings indicated that participants exposed to the highly interactive websites generated significantly more web-related thoughts as compared to those exposed to low and medium interactive versions (High-Low: 1.40, Sig.: .001, High-Medium: 1.23, Sig.: .003). Moreover, participants exposed to low and medium interactive websites do not statistically differ in average performance (Low-Medium: -0.17, Sig.: .880) (Table 1). Therefore, the hypotheses H1(i)a and H1(i)b are rejected. Results indicated that web users expressed significantly more product-related thoughts when they were exposed to the medium interactive website as compared to those exposed to the low and highly interactive version (Medium-Low: 1.85, Sig.: .000, Medium-High: 1.53, Sig.: .001) (F: 12.232, Sig.: .000) (Figure 1). Therefore, the hypotheses H1(ii)a and H1(ii)b are accepted.

Table 1: Multiple comparisons Tukey HSD (product-related thoughts)

Multiple Comparisons - Tukey HSD							
Dependent Variable	(I) Inter-activity	(J) Inter-activity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
	Low	Medium	-1.85*	.399	.000	-2.80	-.90
		High	-0.32	.399	.695	-1.27	.62
	Medium	Low	1.85*	.399	.000	.90	2.80
		High	1.53*	.399	.001	.58	2.47

Mean Square (Error) = 3.083. *. The mean difference is significant at the .05 level.

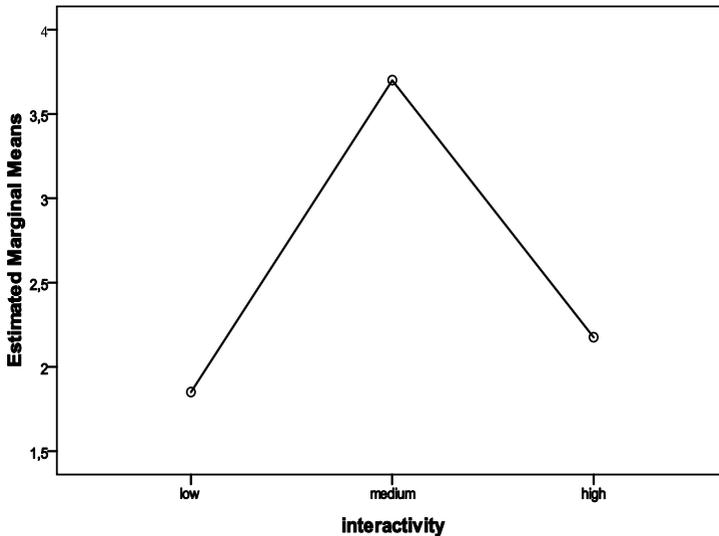


Figure 1: Interactivity effects on product-related thoughts

Hypothesis H2a proposes that consumers exposed to a medium interactive website will produce greater number of favourable website and product oriented thoughts as compared to consumers exposed to a highly and low interactive

websites. MANOVA procedure and Post Hoc Tukey's are used to test the hypothesis H2a. Participants exposed to the highly interactive websites generated significantly more favourable web-related thoughts as compared to those exposed to low and medium interactive versions. However, participants exposed to low and medium interactive websites do not statistically differ in average performance (Table 2). Therefore, the hypothesis H2a (i) is rejected. Moreover, participants exposed to medium interactive websites elicited significantly more favourable product-oriented thoughts compared to those exposed to low and highly interactive versions. Thus, the hypothesis H2a (ii) is accepted (Table 2 & Figure 2).

Table 2: Multiple comparisons Tukey HSD (nature of thoughts elicitation)

Multiple Comparisons - Tukey HSD							
Dependent Variable	(I) Interactivity	(J) Interactivity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Favorable website-oriented thoughts	High	Low	1.20*	.245	.000	.62	1.78
		Medium	.70*	.245	.014	.12	1.28
Favorable product-oriented thoughts	Medium	Low	1.62*	.393	.000	.69	2.56
		High	1.57*	.393	.000	.64	2.51
Mean Square (Error) = 3.083. *. The mean difference is significant at the .05 level.							

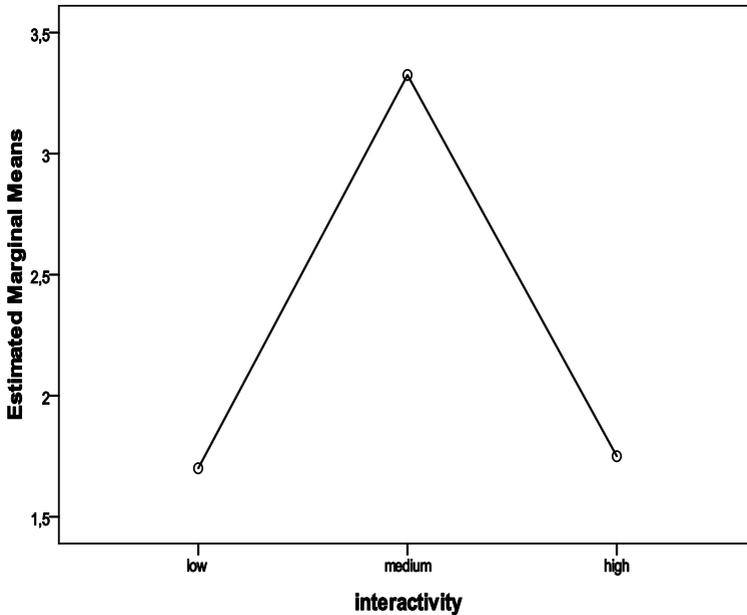


Figure 2: Mean of favorable product-oriented thoughts

The hypotheses H2b proposes that high level of interactivity on a website leads consumers to formulate a more positive attitude toward the website as compared to medium and low levels of interactivity. To examine the effects of interactivity, a MANOVA analysis and Post Hoc Tukey's were conducted with interactivity as the fixed factor and the attitude toward the website, as the dependent variable. Post Hoc Tukey's HSD analysis for the H2b depicted that participants exposed to the highly interactive websites formulated significantly more positive attitudes as compared to those exposed to low interactive version (High-Low: .4458, Sig.: .004). Participants exposed to medium interactive websites do not statistically differ in average performance from those exposed to high and low versions (Medium - Low: .2875, Sig.: .092, Medium-High: -.1583, Sig.: .478) (Figure 3).

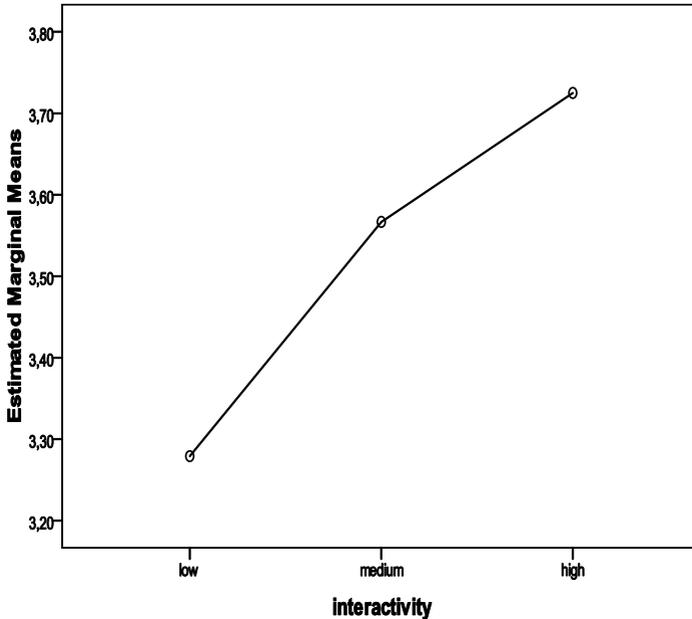


Figure 3: The interactivity effect on attitude toward the website

The MANOVA procedure and Post Hoc Tukey's are used to test the hypothesis H3 that the intention to revisit the website is significantly different based on the interactivity level (low, medium and high). Participants exposed to the highly interactive websites formulated significantly more positive intention to revisit the website as compared to those exposed to low interactive version (High – Low: 7000 Sig.: .032). Participants exposed to medium interactive websites do not statistically differ in average performance from those exposed to high and low versions (Medium – Low: .6000, Sig.: .078, Medium – High: -.1000, Sig.: .930). Figure 4 indicates that the intention to revisit the website grows positively as the level of website interactivity increases (Mean: Low= 5.0667, Medium= 5.6667 and High= 4.4700).

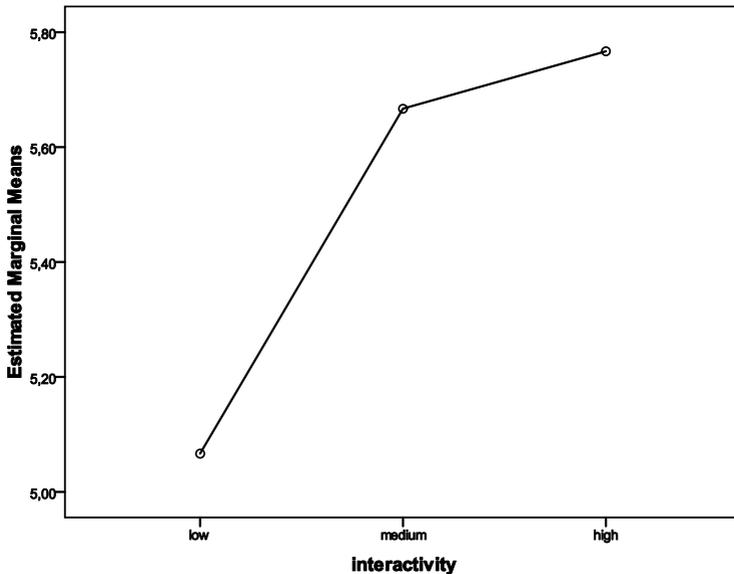


Figure 4: The interactivity effect on intention to revisit the website

5 Conclusion

The purpose of this study was to synthesize the emerging literature of the Internet and marketing related studies in an effort to understand the way interactivity impacts advertising effectiveness. We aimed to investigate which level of website interactivity is more appropriate when assessing advertising effectiveness expressed as (a) information processing (number and valence) (b) attitudes toward the website and (c) intentions to revisit the website. By adapting the Elaboration Likelihood Model proposed by Petty and Cacioppo (1981) we suggested a number of effective approaches when considering website advertising.

The findings of our study show that a website presenting the same amount of information for the same product may stimulate a different response in terms of information processing depending on its interactivity level. Consumers elicited more web-related thoughts in high interactivity levels supporting the use of the central route of the ELM. The ELM suggests that consumers elicit a great number of thoughts when they have followed the central route of persuasion. A plausible explanation of the central route that appears to be employed under high interactivity level for the website is the fact that interactive information should be structured and this process activates an extensive cognitive effort (Dikrastra and van Raaij, 2001).

However, it seems that high interactivity in a website leads to the peripheral process of the product related information. Increased number of interactive elements in a website appears to impair any cognitive effort regarding the product in most people. It is the medium level of interactivity that leads consumers to elicit more thoughts regarding the product. Overall, the medium interactivity level in a website leads to the central process of the product related information.

It appears that interactivity has a direct effect on the nature of thought elicitation regarding the website and the product. High interactivity leads consumers to generate positive thoughts regarding the website. Consistent with this notion are many studies suggesting that interactivity seems to affect positively the valence of any cognitive process (Berthon, et al., 1996; Shih, 1998). When consumers are exposed to interactive advertising they have the control over the information exchange. This control may lead to better evaluations of and responses to the website (Ariely, 2000). Besides, the availability of interactive elements enhances the enjoyment of the website (Neelotpaul, 2010).

Previous study suggests that high levels of interactivity do not lead to stronger attitudes toward the website (Coyle and Thorson, 2001). However, the present study indicated that consumers' attitude grow positively as the level of website interactivity increases. It seems that the favourable thoughts resulting from high interactivity level lead to positive attitude towards the website. There is a consistency between the number of favourable thoughts and the formulated attitude towards the website for each level of interactivity.

It should also be underlined that there is also a relationship between the attitude towards the website and the subsequent behaviour (in terms of intention to revisit the website). Consumers showed the greatest intention to revisit a website when the high interactivity level was employed reconfirming the consistency between attitude and behavior proposed by Petty et al., (1983) in the online environment.

6 Implications

Both academics and participants accept that the design of an effective website in an important and hard issue. Content on the web includes pictures, text, graphics, layout, sound, motion and someday even smell, making the right web and therefore, content decisions are vital to effective web design (Rosen and Purinton, 2004). The present study provides a number of useful insights concerning the development of an effective interactive website.

It should also be underlined that web designers should take into account the main objective of the advertising stimuli. In particular, the current study indicated that the highly interactive website leads consumers to elaborate web-related information to a greater extent as compared to medium and low interactive versions. On the other hand, the highly interactive website appears to be ineffective in terms of the process of the product-related information. The medium level of

interactivity on a website enables consumers to process the product related information in a more central way. Thus, if the main objective of the online advertising strategy is to provide useful information regarding the website and its abilities, then the website should be performed with high interactivity. Moreover, a high level of interactivity takes as a pre-requisite that consumers are aware of the product and its main characteristics from other channels (e.g. print material) and there is not a particular need for consumers to provide cognitive effort to process the product-related information.

Other findings indicate that a highly interactive website concerning will lead consumers to process the web-related information in a central route, to generate more positive thoughts regarding the website, to generate a stronger attitude toward the website and to increase the possibility of revisiting the website. A medium interactive website will lead consumers to elaborate the product related information under the central route and to generate the more positive thoughts regarding the product.

Future research in other forms of advertising messages and other types of products would shed more light in the website design. Additional research that examines individual differences such as "locus of control" would help the consumer online behavior model to be synthesized. The measurement of the online branding would help academics and practitioners to build effective online advertising strategies. Finally further investigation in the accessibility of the attitude and online pre-purchase behavior would provide insights into the cognitive psychology in the online environment.

Several limitations of this study, encompassing the nature of the sample and data collection procedures should be taken into consideration when interpreting the study's results and developing future research to extend and expand its scope.

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Message Framing: How Source Credibility Moderates the Effects of Outcome Type and Outcome Valence

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1 Introduction

Persuaders can frame a message positively or negatively. Positively framed messages accentuate the advantages of following the recommended course of action (that is, of message compliance). Negatively framed messages emphasize the disadvantages of noncompliance (O’Keefe and Jensen, 2006). Since the topic gained much interest, several studies have compared the persuasiveness of positively and negatively framed messages. Overall, the studies did neither demonstrate a general advantage of positively framed messages nor of negatively framed messages (see the meta-analysis by O’Keefe and Jensen, 2008). Also from a theoretical point of view one can find explanations that suggest higher persuasiveness of positively framed messages, and explanations that suggest higher persuasiveness of negatively framed messages. For instance, positive affect transfer (Homer and Yoon, 1992) and message derogation (Rogers, 1983) have been used to explain why positive framing may be more persuasive than negative framing. Contrary, the insight that negative information is perceived as more diagnostic than positive information has been used to explain why negatively framed messages may be more persuasive (Dijksterhuis and Aarts, 2003; Rozin and Royzman, 2001). As a consequence, research on message framing has mainly focused on identifying potential moderators that may determine whether positively or negatively framed messages are more persuasive in a specific situation. Moderators previous research has identified are, for instance, message content (e.g., disease prevention, see Rothman et al. 1993), receiver involvement (e.g., Maheswaran and Meyers-Levy, 1990) and other receiver characteristics, such as regulatory focus (e.g. Cesario, Grant and Higgins, 2004).

This research studies a potential moderator that has not gained much attention in this context, that is, source credibility. Previous research suggests that the effect of message framing on persuasion may depend on source credibility (Druckman, 2001). However, only few studies analyze this effect in the context of positive as opposed to negative framing. Moreover, they report contradictory findings.

The studies by Buda (2003), Buda and Zhang (1999), Zhang and Buda (1999), and Arora et al. (2006) report that low source credibility is more problematic when the message uses negative framing as compared to positive framing. These findings suggest that when message credibility is low, persuaders should use positive framing. However, in the study by Jones et al. (2003) a non-credible source is more effective when negative as compared to positive framing is used. The contradictory findings demonstrate that a more detailed discussion of the moderating effects of source credibility on framing effects may be needed. In particular, a separate analysis of the moderating effects with regard to the two framing-dimensions outcome type and outcome valence seems to be useful.

Recently, the message framing literature distinguishes two framing dimensions (the type of the outcome the message communicates and the valence of the outcome), resulting in four possible frames (e.g., Lee and Aaker, 2004). Outcome type describes whether the outcome a message mentions is related to gains or losses. Outcome valence describes whether the outcome has desirable or undesirable properties (Dijkstra et al., 2011; Yi and Baumgartner, 2009). A combination of these two dimensions leads to four message types, which the literature describes as gains, non-gains, losses, and non-losses (e.g., Lee and Aaker, 2004). Previous message framing-research in the context of source credibility has only used two frames and has not studied potential moderating effects of source credibility on the effects of outcome type and outcome valence separately. Thus, previous studies cannot shed light on the question of whether the effects of positive vs. negative outcome type and positive vs. negative outcome valence differ when source credibility is low as compared to high. However, we argue that the moderating effects of source credibility may differ for the two dimensions of message framing. Therefore, this research manipulates outcome type and outcome valence and tests the moderating effects of source credibility separately.

The present study uses messages that recommend a vaccination against tick-borne encephalitis (TBE). Thus, this research focuses on disease prevention behavior, which provides a specific context for the effects of message framing (Yi and Baumgartner, 2009; O’Keefe and Jensen, 2006).

2 Theory and Hypotheses

2.1 Outcome type and outcome valence

Outcome type describes whether the outcome a message emphasizes is related to gains, like, for instance, beautiful skin (gain and non-gain messages) or losses, like, for instance, sun burn (loss and non-loss messages). O’Keefe and Jensen (2006) use the term positive or negative “kernelstate” in this context. Outcome

valence describes whether the outcome has desirable properties and feels good (gain and non-loss messages) or has undesirable properties and feels bad (loss and non-gain messages) (Dijkstra et al., 2011; Yi and Baumgartner, 2009). Examples for messages with positive valence are: “your way to beautiful skin” (with positive outcome type) or “your protection from sun burn” (with negative outcome type). An example for a message with negative outcome valence is “you miss out on beautiful skin” (with positive outcome type).

Previous research shows that in the context of disease prevention, messages with positive valence are more persuasive than messages with negative valence (O’Keefe and Jensen, 2006). For example, Rothman and Salovey (1997) report that gains and non-losses are more persuasive than losses and non-gains in the context of disease prevention (please note that even though the authors only use the terms gain and loss, they actually study gains, non-losses, non-gains, and losses). We propose:

H1a: For disease prevention messages, positive outcome valence is more persuasive than negative outcome valence

Outcome type of a message is the main information (claim, kernelstate) recipients relate to the product or recommended action (e.g., beautiful skin or skin cancer). Disease prevention topics are usually characterized by high uncertainty (Block and Keller, 1995). Often, the recommended action does not guarantee success (health) and/or may be related to certain side-effects. Since recipients feel vulnerable in the context of disease prevention, previous findings indicate that such messages induce a prevention focus (e.g., Cesario et al., 2012).

Higgins (1997) distinguishes two types of self-regulatory orientations: prevention focus and promotion focus. Individuals who are characterized by a strong prevention orientation are concerned with safety and security needs and focus on their responsibilities. Individuals who are characterized by a high promotion orientation focus on their hopes, aspirations, and advancement needs. Even though regulatory focus is a personal characteristic, it has “non-chronic”, situational components, and messages can influence individuals’ situational regulatory focus (e.g., Lee and Aaker, 2004).

Individuals’ regulatory foci determine the information they are most likely to respond to (Higgins, 1997). When a message induces a prevention focus, recipients focus more on negative information than on positive information (e.g., Lee and Aaker, 2004). In line with this, Cesario et al. (2012) show that, in the context of disease prevention, individuals perceive negative outcome types as more personally relevant. Therefore, in the context of disease prevention, negative outcome types should be more effective than positive outcome types.

Furthermore, we argue that message receivers may interpret negative outcome types (e.g., sun burn) as minimum goals (protection from sun burn), while positive outcome types (e.g., beautiful skin) are maximum goals (e.g. Higgins and Spiegel, 2004; Brendl and Higgins, 1996). Minimum goals should be more credible than maximum goals and may therefore be more persuasive.

In line with the above arguments, Yi and Baumgartner (2009) demonstrate that when messages focus on security-related topics, a negative outcome type is more persuasive than a positive outcome type. We propose:

H1b: For disease prevention messages, a negative outcome type is more persuasive than a positive outcome type.

2.2 Source Credibility

Source credibility is a major determinant of a message's persuasiveness (e.g., McGuire, 1969; Rossiter and Percy 1997). Therefore, a main effect of source credibility on brand attitude should show.

H2a: Source credibility has a positive main effect on persuasion.

2.2.1 Source credibility and outcome type

In the context of disease prevention, negative outcome types are perceived as more personally relevant than positive outcome types (Cesario et al. 2012). Thus, when a message uses a negative outcome type it may increase receivers' involvement. Since source credibility is a peripheral cue (Petty and Cacioppo, 1984), it is less likely to be influential when receiver involvement is high as compared to low (Petty, Cacioppo, and Goldman, 1981; Chaiken, 1980). As a consequence, source credibility should be less relevant when outcome type is negative as compared to positive, and: when source credibility is low, messages should use negative outcome types.

Furthermore, minimum goals (negative outcome type) tend to be more credible than maximum goals (positive outcome type) and individuals are more likely to reach minimum goals than maximum goals (Higgins and Spiegel, 2004). Thus, a less credible source should be more persuasive when presenting a minimum goal than when presenting a maximum goal.

When the source is highly credible, outcome type may not affect persuasion, because message receivers should find minimum goals as credible as maximum goals (minimum goals mainly because they are inherently credible; maximum goals because of the source's credibility).

We propose:

H2b: When source credibility is low, a negative outcome type is more persuasive than a positive outcome type.

H2c: When source credibility is high, outcome type does not affect persuasion (we acknowledge that this hypothesis is a null hypothesis).

2.2.2 Source credibility and outcome valence

Individuals may perceive disease prevention-messages with negative valence as manipulative. Message recipients may wonder why the source deliberately emphasizes negative consequences, which they may perceive as threats. As a result, negative outcome valence may lead to more critical thinking and to a more critical evaluation of the source (Liberman and Chaiken, 1992; Jones et al., 2003). Druckman (2001) and Buda (2003) argue that if the source is not credible and people engage in critical thinking, the negative message should be derogated. However, we argue that if recipients engage in critical thinking they are likely to find counterarguments and derogate the message regardless of source credibility. Such effects can be found in the literature on fear appeals, even when highly credible sources are used (e.g., Kohn et al., 1982; Hill, 1988). Therefore, we expect that disease prevention-messages with positive outcome valence are more persuasive than messages with negative outcome valence when source credibility is low and when it is high.

H2d: Positive outcome valence is more persuasive than negative outcome valence independent of whether source credibility is high or low.

3 Method

3.1 Participants and procedure

1894 students of a German university participated in the online study (67% female). An email invited the students to participate and provided a link to the study. Participating students could win a voucher worth 100 Euro. The study contained a control question that asked participants for a piece of information that the message emphasized. It is likely that participants who were not able to answer this question correctly did not read the message and did not seriously fill in the questionnaire. Therefore, the data analysis only considers individuals who responded correctly to the control question ($n = 1589$).

3.2 *Stimuli and Design*

This paper uses a 2 (outcome type) x 2 (outcome valence) x 2 (source credibility) between subjects design. The product was a fictitious brand that offers a new vaccination against tick-borne encephalitis (TBE). The stimuli were created based on the studies by Lee and Aaker (2004) and Dijkstra et al. (2011).

Message framing was manipulated as follows: Outcome type was manipulated by emphasizing either tick-borne encephalitis (loss-related) or the pleasure of enjoying nature in a relaxed manner (gain-related). Outcome valence was manipulated by letting respondents know that with the vaccination they can relax and enjoy nature/protect yourself from tick-borne encephalitis (positive) versus without the vaccination they cannot relax and enjoy nature/may suffer from tick-borne encephalitis (negative). The four messages are partially provided in table 1.

Credibility was manipulated as follows: The credible source that recommended the product was an association of German doctors/general practitioners and the less credible source was the brand's sales agency.

Table 1: Message framing manipulations

Outcome type	Outcome valence	
	<i>positive</i>	<i>negative</i>
<i>gain-related:</i>	<i>Gain:</i> With vaccination: Enjoy nature in a relaxed manner	<i>Non-Gain:</i> Without vaccination: Miss out on enjoying nature in a relaxed manner
<i>loss-related:</i>	<i>Non-Loss:</i> With vaccination: Avoid harms from tick-borne encephalitis (TBE)	<i>Loss:</i> Without vaccination: May suffer harms from tick-borne encephalitis (TBE)

3.3 *Measures*

Brand attitude represents persuasion in this study. Brand attitude was measured with four items on 7-point rating scales (useless-useful, unfavorable-favorable, negative-positive, bad-good). Cronbach Alpha was .92.

Source Credibility and its components were measured with five items on 7-point rating scales (not credible-credible, not competent-competent, low/high expertise, not trustworthy-trustworthy, not honest-honest). Cronbach Alpha was .94.

In addition, respondents’ general attitude toward vaccinations against TBE was measured on a 5-point rating scale (negative-positive) before they saw the message (pre-measure). The item was: “How do you think about vaccinations against TBE?” This variable forms a covariate in the data analyses.

4 Findings

Manipulation check of source credibility: The manipulation check demonstrates that the association of German doctors was perceived as more credible than the sales agency (5.11 vs. 4.09, $p < .01$).

To test the hypotheses 1a and 1 b, we perform an analysis of variance with brand attitude as dependent variable and outcome type and outcome valence as independent variables. We also include individuals’ pre-measured attitude toward the product category as a covariate. The inclusion of this covariate strengthens the validity of our estimates, because in our context, attitude toward the brand may strongly depend on individuals’ general attitude toward the product category (vaccination). Table 2 shows the results.

Table 2: Findings related to hypotheses 1a and 1b

	<i>SS</i>	<i>F</i>	<i>p</i>
Outcome Type	13.4	10.18	.001
Outcome Valence	6.3	4.81	.028
Outcome Type by Outcome Valence	2.9	2.12	.146
Covariate	588.1	447.2	.000

Dependent Variable: Brand Attitude

The effects table 2 provides demonstrate that outcome valence and outcome type affect brand attitude. The effects are significant even though the analysis includes the pre-measured attitude toward the product category as a covariate. The mean values are as follows: gain-related/positive valence (gain): 5.27; loss-related/positive valence (non-loss): 5.38; gain-related/negative valence (non-gain): 5.04; and loss-related/negative valence (loss): 5.21. The findings support H1a, which predicts that positive outcome valence is more persuasive than negative outcome valence (mean value of the two messages with positive valence = 5.33; negative valence = 5.12, $p < 0.01$). Furthermore, the findings provide support for H1b, which predicts that a negative outcome type is more persuasive

than a positive outcome type (mean value of the two messages with negative type = 5.30; positive type = 5.15, $p < 0.05$).

To test the hypothesis 2a, which predicts a main effect of source credibility on persuasion, we perform another analysis of variance and include source credibility as an independent variable. The effect of source credibility on brand attitude does not prove significant ($SS = .306$; $F = .233$; $p = .629$). Thus, the study does not support hypothesis 2a. In line with the first analysis of variance (table 2), the analysis shows significant effects of outcome type, outcome valence, and the covariate, and an interaction effect (credibility by outcome valence, $p < .01$). The remaining interaction effects are insignificant.

Table 3: Brand Attitude across the groups

			<i>Low source credibility</i>		<i>High source credibility</i>	
			<i>Outcome Valence</i>			
			<i>positive</i>	<i>negative</i>	<i>positive</i>	<i>negative</i>
<i>Outcome Type</i>	<i>gain-related</i>	mean	5.10	5.07	5.44	4.99
		std	1.41	1.38	1.19	1.42
		N	190	205	191	198
	<i>loss-related</i>	mean	5.31	5.26	5.45	5.16
		std	1.14	1.25	1.24	1.32
		N	203	191	210	201

To test the hypotheses 2b, 2c, and 2d we perform analyses of variance among respondents who saw the credible source and among respondents who saw the less credible source. Table 3 provides the mean values (brand attitude), standard deviations (std) and cell sizes (n) of the eight groups. Table 4 shows the results of the analyses of variance.

Table 4: Findings related to the hypotheses 2b, 2c, and 2d

	Low Credibility			High Credibility		
	SS	F	p	SS	F	p
Outcome Type	12.51	9.71	.002	2.77	2.08	.150
Outcome Valence	.15	.12	.733	15.47	11.60	.001
Outcome Type by Outcome Valence	.17	.13	.719	3.98	2.98	.085
Covariate	309.27	240.06	.000	276.01	206.87	.000

Dependent Variable: Brand Attitude

The study supports hypotheses 2b and 2c. When source credibility is low, the negative outcome type is more persuasive than the positive outcome type (mean value of negative type = 5.29; positive type = 5.08; $p < .05$). When source credibility is high, brand attitude does not depend on outcome type (mean value of negative type = 5.31; positive type = 5.21; $p = .32$). We acknowledge that hypothesis 2c is a null hypothesis, which (from a statistical point of view) cannot be tested. However, the findings may suggest that outcome type is more influential when source credibility is low.

The findings provide support for hypothesis 2d only in the high credibility-group. When source credibility is high, the positive outcome valence is more persuasive than the negative outcome valence ($p < .01$). The mean values in this group are: positive valence = 5.45 and negative valence = 5.08. When source credibility is low outcome valence does not affect persuasion. The mean values in this group are: positive valence = 5.21 and negative valence = 5.16. The significant interaction effect of credibility by outcome valence that the second ANOVA (performed to test hypothesis 2a) reports, and a closer look at the mean values suggest that when source credibility is high, a positive outcome valence has a relatively strong positive effect on persuasion.

5 Discussion

This study uses disease prevention messages and tests the effects of outcome type and outcome valence on persuasion in a large student sample. The findings are in line with previous research (e.g., Yi and Baumgartner, 2009), and demonstrate that for disease prevention messages negative outcome types are more persuasive than positive outcome types and positive outcome valence is more persuasive than negative outcome valence.

Furthermore, the study tests the moderating effect of source credibility on the effects of outcome type and outcome valence on persuasion. The findings suggest that for less credible sources mainly outcome type is influential: a less credible source is more persuasive when it uses a negative outcome type as compared to a positive outcome type. Negative information may increase message receivers' involvement, and source credibility becomes less relevant under high involvement conditions. In contrast, if a less credible source deployed a positive outcome type (which may result in relatively low involvement), message receivers may be more likely to use the source's low credibility (peripheral cue) for their judgment. Furthermore, loss-related outcome types are minimum goals, and a less credible source should be more successful in selling less ambitious claims (minimum goals) than maximum goals.

For less credible sources, outcome valence did not affect persuasion. This finding is against our hypothesis 2d, which states that negative outcome valence leads to message derogation and is less persuasive regardless of source credibility. One possible explanation for why negative valence was not inferior in this study: when source credibility is low, negative outcome valence may not be threatening.

For credible sources the findings suggest that mainly outcome valence is relevant: a credible source is more persuasive when it uses positive outcome valence as compared to negative outcome valence. Disease prevention messages with negative outcome valence may be threatening when a credible source presents them, and fear may lead to message derogation (Rogers, 1983). In line with hypothesis 2c, outcome type has no effect on persuasion when source credibility is high. When a source is highly credible, it may be able to communicate maximum goals as persuasively as minimum goals.

This study did not report a significant main effect of source credibility on persuasion, which is against hypothesis 2a. It is possible that receiver involvement in this study was relatively high, because tick bites and related infections are a relevant threat to many individuals in the southern part of Germany (where the study was conducted). When involvement is high, receivers are less likely to use peripheral cues, such as source credibility (Petty and Cacioppo, 1984).

6 Limitations and future research

This study uses messages that emphasize the advantages of a vaccination against tick-borne encephalitis. Future research should test the moderating effects of source credibility on the effects of outcome type and outcome valence in other contexts.

This paper studies the effects of outcome type and outcome valence when source credibility is high as opposed to low. In our study, the highly credible source was an association of German doctors (mean value in the manipulation

check: 5.11 on a 7-point scale), and the source low in credibility was a sales agency (mean value: 4.09). The findings suggest that outcome type matters when source credibility is low and outcome valence matters when source credibility is high. However, this study does not analyze how credible or incredible a source has to be to produce the above results. Therefore, future research may test the effects this study revealed with other degrees of source credibility.

7 References

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Modeling Synergies in Cross-Media Strategies: On-line and Off-line Media

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1 Introduction

Changing market circumstances push marketing managers to optimize advertising spending and search for the most effective and affordable advertising media. In integrated marketing communication (IMC), synergy can contribute significantly to reinforcing the preferred outcome, that is, total sales. Cross-media synergy, defined as the combined effect of more than one media that exceeds each medium's individual effects on the measured outcome, is of particular interest (Naik and Raman, 2003; Chang and Thorson, 2004; Havlena, Cardarelli, and de Montigny, 2007).

Naik and Raman (2003) stated that smart companies tend to apply the IMC perspective to their business. In such way they create a perfect platform for the synergetic power of advertising to evolve. These companies are creating and reinforcing the effect of synergy intentionally.

Understanding cross-media synergy is important, because is it likely to affect resource allocations. For example, when synergy exists, managers should allocate more funds to the less effective medium, which reinforces the more effective medium through synergy and increases the total media budget (Naik and Raman 2003). This notion raises important questions about the influence of different media channels on sales and how interactions can contribute to allocating an optimal media schedule.

Simple advertising models suggest that in advertising, as the effectiveness of an activity increases, managers should increase the spending on that activity. This would thus increase the total media budget. Furthermore, the total budget should be allocated to multiple activities in proportion to their relative effectiveness. On the other hand, media-mix strategies have shown that if synergy increases, managers should decrease the proportion of media budget allocated to the more effective communication activity and vice versa. Several other implications accompany the presence of synergy in the model (Raman and Naik, 2006).

The purpose of the present paper is to determine if and how synergies in advertising affect sales through on-line and off-line channels. Using market data, we have calibrated an analytical model to establish the presence of synergy between off-line (television) and on-line (Internet) advertising. Marketing man-

agers' appreciate the on-line medium because it offers affordable advertising rates. Its effectiveness in achieving measurable goals, however, such as sales, is difficult to prove (Naik and Peters, 2009). By recognizing the interaction effects between the on-line and off-line activities, managers could consider inter-activity trade-offs to plan their media-mix strategies optimally (Naik, Raman, and Winer, 2005).

From our perspective, the present paper offers three main contributions. First and most importantly, it extends the proposed model of cross-media synergy in line with a specific data collection mode that includes specific measurable outcomes (sales) attributed to each medium. The second and third contributions are methodological: we develop an extended non-hierarchical model and made an application of generalized least squares to a time-series dataset for both on-line and off-line advertising.

2 Literature review

With advertising requiring high investments, marketers need an analytical tool to measure advertising effectiveness; that is, a tool that links sales with return-on-investment (ROI). Analytic models could be applied to explain the links and contribute to improved decision-making and profitability. These models, however, are not intended to measure the precise effects of advertising (Coughlan, Choi, Chu, Ingene, Moorthy, Padmanabhan, Raju, Soberman, Staelin, and Zhang, 2010), but instead, in line with the Pareto principle, they connect several causes with the majority of effects (Tarascio, 1973). Such models must balance parsimony and robustness with a minimum number of assumptions and increase the external validity of the theory (Coughlan et al., 2010).

Managers understand that consumers combine information they receive from various media, which leads to integrated messages across all media (Raman and Naik, 2006). The effectiveness of cross-media campaigns, that is, those that combine on-line and off-line advertising, can result in more positive consumer responses than if only one medium is used (Voorveld, 2011).

The objective of cross-media communication is to increase the ultimate effect, such as sales and brand recognition, by using various communication channels. Cross-media strategies apply available communication channels to communicate with potential customers. Such strategies maximize cost-efficiency using unified messages and consistent image of the company.

The effects of individual channels are dependent. Cross-media communications allows managers to consolidate advertising channels and synergy consequently emerges (Naik and Raman, 2003). Assael (2011) synthesized articles that were published in *Journal of Advertising Research* over the last 50 year that discussed synergy. He demonstrated the progression of media and cross-media research and pointed out the nature of analytical advances over time. In the

1960s, models were developed to optimize reach, which were followed by reach estimation models in the 1970s. After 1994, several individual and joined effect studies appeared, followed by studies of synergetic effects and cross-media allocation studies. Assael (2011) argued that "...the proliferation of media has outstripped the means to measure cross-media effectiveness. Research on the synergistic effects of media is becoming more sophisticated: witness the identification of the issue of the directionality of synergy and, development of criteria for budgetary allocations based on synergy." (p.55).

By focusing on studies of synergetic effect and cross-media allocation dealing with aggregated data, we can describe the evolution of media-mix models. Table 1 presents a brief historical evolution of models, from a simple first-order autoregressive advertising model introduced by Palda (1965) to more complex models (Palda, 1965; Naik and Raman, 2003). Early studies were conducted in terms of static models based on generalized least square regression (Gatignon and Hanssens, 1987). Later models were redefined by adding time components and other modifications using non-linear squares regression or Kalman filter estimation (Gopalakrishna and Chatterjee, 1992; Naik and Raman, 2003; Raman and Naik, 2006). Such models also include an interaction term between advertising channels and lagged sales, not only an interaction between advertising channels (Naik and Raman, 2003).

Table 1: Evolution of media-mix models (source: Naik and Raman, 2003)

<i>Authors</i>	<i>Model development</i>
Palda (1965): first-order autoregressive advertising model	$S_t = \alpha + \beta_1 u_t + \lambda S_{t-1} + v_t$
Montgomery and Silk (1972): incorporate the effects of multimedia advertising	$S_t = \alpha + \beta_1 u_t + \beta_2 v_t + \lambda S_{t-1} + v_t$
Jagpal (1981), Gopalakrishna and Chattered (1992): interaction term	$S_t = \alpha + \beta_1 u_t + \beta_2 v_t + \kappa u_t v_t + \lambda S_{t-1} + v_t$
Naik and Raman (2003): carryover assumption by each medium to increase the retention rate	$S_t = \alpha + \beta_1 u_t + \beta_2 v_t + [\lambda_1 w_1 + \lambda_2 (1 - w_1)] \lambda_1 S_{t-1} + v_t$
Naik and Raman (2003): interactions between advertising media and lagged sales, brand sales available by each medium	$S_t = \alpha + \beta_1 u_t + \beta_2 v_t + \lambda S_{t-1} + \kappa_1 u_t v_t + \kappa_2 u_t S_{t-1} + \kappa_3 v_t S_{t-1} + v_t$

3 Methods

In this section, we describe the dataset and present parameter estimation re-sults, test alternative models, and assess the effectiveness of different models. While fitting the models to the data, we check for the existence and implications of synergy between channels. From a post-hoc perspective, specified models need to be applied to specific data. The chosen model should deal with any noise and inconsistencies in the data.

3.1 Data Description

Data were gathered for an established brand of durable household products, for which the buyer's involvement is expected to be high, and the buying decision is a thoughtful decision that takes time. It is expected that the purchase as a response to advertising will not be instantaneous.

The advertising dataset for the brand comprises a weekly time series, starting from the year 2008 to the year 2012 (see Figure 1). The market data consist of television and on-line sales measured in the value of units sold. In order to maintain confidentiality we standardized all the data.

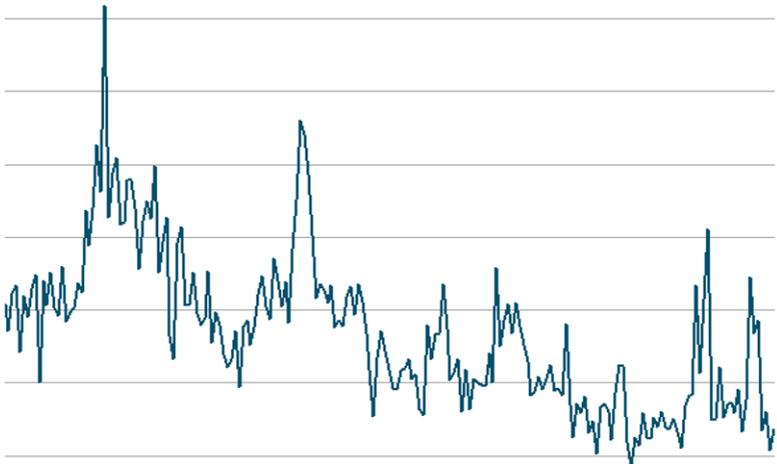


Figure 1: Fluctuation of total sales

Proprietary data consist of the number of commercial minutes (for advertising on air) purchased for public and commercial television stations in the national market, whereas on-line activities are expressed as the number of on-line visitors. Visits represent the number of individual sessions initiated by all the

visitors to the Internet site. Data collection is detailed; each channel has its own tracking number, which allows us to track sales separately for each channel.

From the descriptive analysis, we know that sales are highest on the Internet, although they are induced by television ads. This dictates that visits to the Internet are not entirely a reflection of advertising on the Internet, but also a synergistic result of the television ads.

We constructed dummy variables to capture seasonal effects in sales; we identified drops in March and August and an increase in December. These findings are justified by the nature of selling on-line durable products on-line, which decrease with spring and during the holiday period in August and increase in the winter before Christmas.



Figure 2: Seasonal decomposition

We apply empirical information from marketers in this product category about advertising decay and its effect on sales using a two-week time lag for the “advertising carry-over” effect. In practice, marketers in this product category have observed and reported that if advertising on television is terminated, a decline in buying over the Internet is observed only after television advertising has been interrupted for two weeks.

3.2 Estimation approach

To assess the effectiveness of marketing activities on marketing performance and synergies, marketers estimate media-mix models by using regression analysis. Naik, Schultz, and Srinivasan (2007) argued that the OLS approach cannot estimate media-mix models accurately, because the dependent variables are commonly noisy, imprecise, and fallible. They proved empirically that OLS overstates the impact of media advertising on sales, whereas it understates cross-media synergies and carryover effects. Furthermore, it ignores intertemporal dependence because it uses the marginal density of sales to construct the likelihood function and non-stationarity in observed sales, which results in biased parameter estimates (Naik and Raman, 2003; Raman and Naik, 2006; Naik et al., 2007). To overcome such problems, we apply the generalized least squares (GLS) regression to our model, because when dealing with time-series it is implausible to assume that errors are independent. GLS extends the ordinary least-squares (OLS) estimation of the normal linear model by providing for

possible unequal error variances and for correlations between different errors (Weisberg and Fox, 2010).

Furthermore, data collection is sophisticated and based on MS ProClarity platform. Strict filters for data selection are able to capture data while keeping the noise in the data to a minimum. Here, we refer to the proposition that if measurement errors in a dependent variable are innocuous, then OLS estimates are comparable to the Kalman filter (Greene and Zhang, 1997; Naik et al., 2007). Sant (1977) showed the formal equivalence of Kalman filtering and smoothing techniques with GLS applied to time varying parameter models

Our market data are time-series data aggregated to weekly input. The time series incorporated in our models jointly cover a vector of variables (sales, advertising minutes on television, and visits on-line) and are extended to multiple time series to specify lag structure in response models. Prior to the main analysis, we looked at the data and cleared all the inconsistencies in measurement scales and non-usual trends. Before conducting the GLS regression, we checked the model with the autocorrelation function (Dekimpe, Franses, Hanssens, and Naik, 2008).

4 Empirical Results

4.1 *Model development*

In building a model, researchers strive for effective parsimony and robustness. Typically, advertising effectiveness is measured through econometric aggregate response models (e.g., media-mix) that measure the impact of varying levels of advertising (Joseph, 2006). A problem occurs with a large number of independent variables, some of which have multiple components (such as lagged values or temporal and contextual reference prices), in that testing all sorts of interactions can get quite complex (Tellis, 2006). It is thus necessary to control for over-parameterization.

To maintain the balance, we computed the following goodness-of-fit information criteria: Akaike information criterion (AIC), Schwarz's information criterion (BIC), and maximized log likelihood value.

The total effect of one type of advertising from the exposure of another type of advertising is the sum of the current effect and the carryover effect that results. Tellis (2006) defined the current effect of advertising as the change in sales caused by being exposed to advertising that occurs during the same time period as the exposure. The carryover effect of advertising is the portion of its effect that occurs in time periods following the advertising.

We begin by testing the model without interactions, but with the impact of unequal effectiveness of advertising, as introduced by Montgomery and Silk (1972):

$$(1) S_t = \alpha + \beta_1 u_t + \beta_2 v_t + \lambda S_{t-1} + v_t$$

where S_t represent total sales at time t ; u_t is the advertising effort on television in minutes at time t ; v_t is the advertising effort on the internet in number of visitors at time t ; α is the mean level of initial sales in the absence of advertising; β_1, β_2 represents the short-term nature of television and Internet advertising; λ is the carryover effect of advertising; and v_t is a normally distributed error term with $t = 1 \dots 201$ weeks.

Much has been done trying to model synergy in traditional media using common advertising models. Next, we fit our data to Jagpal (1981) and Gopalakrishna and Chatterjee's (1992) model with an interaction term

$$(2) S_t = \alpha + \beta_1 u_t + \beta_2 v_t + \kappa u_t v_t + \lambda_1 S_{t-1} + v_t$$

where S_t represents total sales at time t ; u_t is the advertising effort on television in minutes at time t ; v_t is advertising effort on the Internet in number of visitors at time t ; α is the mean level of initial sales in the absence of advertising; β_1, β_2 represents the short-term nature of television and Internet advertising, κ represents an interaction term between advertising effort on television and the Internet; λ is the carryover effect of advertising; and v_t is a normally distributed error term with $t = 1 \dots 201$ weeks (Jagpal, 1981; Gopalakrishna and Chatterjee, 1992).

With the presence of synergy established, we can derive theoretical propositions dealing with allocating the media budget optimally across multiple media (Naik and Raman, 2003). Empirically, we prove the existence of synergy by introducing the interaction term between advertising efforts. When the existence of synergy is proven, we know that managerial actions will have a deeper effect. Their decisions effect market outcomes (sales and recognition) and the effectiveness of marketing activities (Raman and Naik, 2006). Our proposed model extends Naik and Raman's (2003) IMC model, where an unequal carryover effect is known. In our model the carryover effect is known. This could be possible by tracking sales for each media separately:

$$(3) S_t = \alpha + \beta_1 u_t + \beta_2 v_t + \kappa u_t v_t + \lambda_1 S_{t-1}^u + \lambda_2 S_{t-1}^v + v_t$$

where κ represents synergy, which is the combined sales impact of (u, v) that exceeds the sum of the independent effects of β_1, β_2 (short-term of television and Internet advertising), while lagged sales represent a carryover effect. We denote the sum of sales with S_t ; television advertising is expressed in minutes with u_t ; and on-line activities are expressed in number of visitors per day with V_t with $t = 1 \dots 201$ weeks.

This specification means that sales depend on sales of the prior period and all the independent variables that led to prior sales, plus the current values of the same independent variables. Our aim is to test the model empirically against previously introduced models. We keep all the components (important variables) in the model all the time to avoid a correlation with the error term. The linear model we are using can be referred also as the Koyck model, because it includes the lagged dependent variable as an independent variable (Tellis, 2006).

4.2 *Model comparisons*

The first model (Table 2) focuses on the direct effect of television and Internet advertising on total sales. T-values around 2 (in absolute terms) mean that the estimate is statistically significant at the 95% confidence level.

We selected the most parsimonious model by testing the three described models (see Table 5). The goodness-of-fit indicates that the last proposed model performs the best (Table 4), because the values of AIC and BIC are the smallest. From the proposed model, we can deduce that the carry-over effect from both television and Internet play a significant role. This could be explained by the non-instantaneous buying decisions related to high-involvement household products. Because a period for reflection is needed, lagged sales (of two weeks) are more exploratory.

Synergy between television and Internet is also present and significant at the 95% confidence interval. With our data, we can conclude that there is an interaction (synergy) present between advertising on television and the Internet (Table 3, Table 4). Television advertising communicates brand and the web page address, so it is expected that television viewers will visit the web page. Seasons also have a statistically significant effect on explaining sales. As noted, we find a statistically significant drop in March and August and an increase in December.

An improvement in modeling synergy is enabled by tracking sales for each channel separately. When comparing models (see Table 5), the third model performs the best based on the smallest AIC and BIC information criterion.

5 Conclusions and implications

Advertising effectiveness is typically measured through econometric models that measure the impact of varying levels of advertising. This is typically done using aggregate response, for example, using media-mix models. When synergy is present, an increased optimal advertising budget is encouraged and the optimal spending level rises. However, the budget must be spent in a way that is most likely to create stronger synergetic effects across media. As synergy is detected, more resources should be allocated in an otherwise less effective medium. This counterintuitive proposition was first introduced by Raman and Naik (2003). Normally, when two media are unequally effective, the budget is spread between them according to their relative effectiveness. Still, when the presence of synergy is proven to be optimal, spending depends not only on its own effectiveness, but also on the spending level for the other activity. Optimal spending on the more effective activity increases slowly relative to the increase in the optimal spending on the less effective activity. This indicates the need for the counterintuitive formula (Raman and Naik, 2006). If synergy increases, managers should decrease the proportion of media budget allocated to the more effective communication activity and vice versa.

The lagged sales term tracks the carryover effect of the sales. If the increase in the carryover effect is experienced, the media budget must increase as well. Furthermore, as carryover increases, managers should decrease the proportion of budget allocated to the more effective activity and vice versa. Again, the counterintuitive nature of the proposition is explained through optimal spending, which depends not only on its own effectiveness, but also on the spending level for the other media.

We surely know that sales on the Internet exceed television sales. However, the effectiveness of the advertising effort is more difficult to compare, because we have minutes on air and number of visitors in the common denominator. From a strong correlation between television minutes and visitors to the web, we can deduce that potential customers search on-line after being “pushed” from an off-line, traditional media. Because we have proved the existence of the carryover effect, we can advise that if the increase in carryover effect is experienced, the total budget invested in advertising in off-line and on-line media must be increased as well.

Anomalies in the models can be explained by the following two consumer segments: on one side are television viewers who, we presume, regularly consult information on the Internet. On the other hand, there are people who watch only television and do not use either buying method. Customers that emerge when applying synergy are mostly those that watch television and consult the Internet for further information on a desired product.

Working with managers, one comes to realize that a battle is raging between “pro Internet” and “pro television” managers. Those that work with the Internet

agree that their sales depend very much on television advertising. Television still has a broader reach than Internet. Since television advertising provides customers with a telephone number for immediate calls or a web address for a visit, some customers choose the latter. According to Dekimpe et al (2008), on-line and off-line advertising should not be seen as “competing alternatives.” Marketing activities are unequally effective, but can still “benefit from integrative efforts to generate cross-media synergies” (Dekimpe et al., 2008). In this way, companies benefit from direct and joint effects of advertising.

Understanding patterns in consumer reactions to advertising leads to success and changes the role of marketers. When using cross-media strategy, planning that takes into account prior feedback and avoids repeating the same mistakes is important. Understanding which variables are important and how variables in the model interact provides the tool to increase the success rate. Marketers’ intuitive knowledge must be supported analytically by developing analytical models to capture the essence of a context and limiting the complexity of the model at the same time (Coughlan et al., 2010).

It must be noted, however, that advertising exerts many other effects on consumers and sales. Other influences could be represented as manifest or latent variables. In our model, advertising execution was not considered, which limits the implications of the present study. Also, the wear-out problem of advertising is not included in the range of the present study.

In summary, the literature provides extended models accordingly to data availability and a specific data collection mode, that of on-line and off-line advertising in an extended non-hierarchical model and generalized least squares application to time-series. Our intention was to contribute to understanding consumer responses to cross-media strategies. Our starting point was the advertising model based on sales as the main dependent variable. Total sales are affected by advertising, and our interest was to check for synergy. We improved the existing model to meet our specific data collection mode. Specific data collection mode included specific measurable outcomes (sales) attributed to each medium. We demonstrated an extension of the proposed model of cross-media synergy.

6 Appendix

Table 2: Model without interaction term (1)

<i>Model parameters</i>	<i>Generalized least square estimates</i>	<i>Std. Error</i>	<i>T value</i>
Initial sales mean level, α	-0,015	0,262	-0,056
Main effect of TV advertising, β_1	0,103	0,079	1,304
Main effect of Internet advertising, β_2	0,261	0,078	3,342
Carryover effect, λ	-0,129	0,067	-1,926
March drop, γ_1	-0,271	0,173	-1,560
August drop, γ_2	-0,616	0,209	-2,946
December, rise γ_3	0,477	0,202	2,358

Table 3: Model with interaction term (2)

<i>Model parameters</i>	<i>Generalized least square estimates</i>	<i>Std. Error</i>	<i>T value</i>
Initial sales mean level, α	-0.027	0.060	-0.444
Main effect of TV advertising, β_1	0,325	0,064	5,049
Main effect of Internet advertising, β_2	0,308	0,065	4,705
Synergy between TV and internet, κ	0,119	0,059	2,015
Carryover effect, λ	0,309	0,062	4,959
March drop, γ_1	-0,367	0,199	-1,845
August drop, γ_2	-0,817	0,251	-3,250
December, rise γ_3	0,450	0,203	2,219

Table 4: Proposed model with interaction term and lagged sales (3)

<i>Model parameters</i>	<i>Generalized least square estimates</i>	<i>Std. Error</i>	<i>T value</i>
Initial sales mean level, α	-0,022	0,047	-0,476
Main effect of TV advertising, β_1	0,184	0,065	2,817
Main effect of Internet advertising, β_2	0,276	0,057	4,869
Synergy between TV and internet, κ	0,110	0,051	2,157
TV carryover effect, λ_1	0,388	0,070	5,571
Internet carryover effect, λ_2	0,173	0,056	3,095
March drop, γ_1	-0,481	0,199	-2,423
August drop, γ_2	-0,878	0,244	-3,598
December, rise γ_3	0,619	0,196	3,166

*the better is the model associated with the smallest value

Table 5: Models comparisons

<i>Parameters</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
df	10	11	12
AIC	332.6018	338.2006	328.6678
BIC	365.6349	374.5370	368.3074
logLik	-156.3009	-158.1003	-152.3339
Test		1 vs. 2	2 vs. 3
L.Ratio		3.598805	11.532875
p-value		0.0578	0.0007

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Investigating the Entertainment–Persuasion Link: Can Educational Games Influence Attitudes Toward Products?

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1 Introduction

Over the last decade, games have emerged to be seen as having a valuable contribution to educate and communicate (Bogost, 2011). In terms of the use for marketing, there are so-called advergimes which aim to promote a certain brand (Santos et al., 2007). However, this form of game is not necessarily the only one a company might consider for communication with their customers. Games with educational objectives are also becoming more common. Games in this category are generally referred to as serious games. Serious games include an educational message (Blumberg, Almonte, Anthony and Hashimoto, 2013). They are more than just a typical leisure activity and they cover varied issues such as academic topics, social change campaigns, occupational instruction, health issues, military training, and marketing issues (Ratan and Ritterfeld, 2009). An example is the “Toothprotector” game of Colgate, which shows that if you use toothpaste and adequate dental care products your teeth will be protected from germs (Bogost, 2007). These games not only convey a brand message, they also have an educational message, often to persuade the consumer to a more healthy or sustainable behavior. Examples include energy-saving games from power suppliers (e.g. www.planetpower.com, www.electrocity.co.nz of Genesis Energy, NZ), and games encouraging safe driving behavior (e.g. Ford’s Driving Safe for Life, <https://www.drivingskillsforlife.com>). Although most food companies and retailers still use common advergimes, some serious games started to be used to educate consumers about better nutrition resulting from the global concern about obesity and other nutrition related issues (Pempek and Calvert, 2009).

However, given that these games are new to customers, and although research has been conducted on serious games since the 1980s (see for an overview Connolly, Boyle, MacArthur, Hainey and Boyle, 2012), numerous questions remain inadequately unanswered. As Connolly et al. (2012) in their meta analyses and literature review found, most of research concentrates on the outcome, and not on the mechanisms which lead to outcomes. This paper investigates one of the most important mechanisms of a game—entertainment—and how it affects the outcome. Researchers as well as practitioners have advocated for a strong entertainment–persuasion link (Nelson and Waiguny, 2012; Ritterfeld and Weber, 2006). Yet considering that serious games, unlike adver-

games, transfer not just the fun factor of the game on to the brand, this poorly explored effect of entertainment needs further attention. Serious games use more complex information than just a brand's logo or products. This paper contributes to the literature by investigating how entertainment affects the motivation to play a serious game, and in particular how entertainment increases the persuasive effects. The paper investigates how entertainment engages learning in games which convey a more complex content than just an advergame with integrated products or brand placements. As outlined below, entertainment might therefore play another role than just to be the "fun factor" to be transferred onto the brand.

2 Theoretical Framework

2.1 *Serious games*

As noted earlier, games for learning are referred to as serious games (Marsh, 2011). These games combine an entertainment component in conjunction with a learning component (Stapleton, 2004) and their major aim is to influence behavior (Blumberg, Almonte, Anthony and Hashimoto, 2013), as well as other outcomes such as motor skills; affective or motivational factors; physiological, but mainly perceptual outcomes; and in particular, knowledge acquisition (Connolly et al., 2012). There are several ways and models to implement educational content (Marsh, 2011). Narratives, feedback, procedural rhetoric by integrating the learning goals in the gaming goals, simulation, intelligence and problem solving are the most common forms that serious games use to convey a certain message (Bogost, 2007; Connolly et al., 2012; Marsh, 2011; Ritterfeld and Weber, 2006; Thompson et al., 2010). Essential for the understanding of the effectiveness of serious games is to recognize how they differ from other computer games. Firstly, serious games' main objective is not fun or leisure activity (Connolly et al. 2012). Secondly, in advergames the message is typically rather simple and often only in the form of a brand placement (Nelson and Waiguny, 2012; Youn and Lee 2012), while serious games have more educational content that is directly related to playing the game (Bogost, 2007; Marsh, 2011). The role of entertainment is also different. For prime games entertainment is the ultimate outcome, and for advergames entertainment is a factor that attracts people to the game and creates a positive perception of the brand. In contrast, for serious games entertainment mainly works as a motivator and enabler, as explained in following chapter.

2.2 *The role of entertainment for learning*

Research has found that entertainment (sometimes referred to as enjoyment) serves as an enabler, motivator, moderator and mediator of persuasion in games (Martí-Parreño, Aldás-Manzano, Currás-Pérez and Sánchez-García, 2012; Thompson et al., 2010; Marković et al., 2007). Entertainment manifests in focused attention, immersion, positive as well as negative emotions during reception, and a sense of control and mastery. All this results in excitation transfer, catharsis, and learning effects (Vorderer, Klimmt and Ritterfeld, 2004). Ritterfeld and Weber (2006) describe three basic paradigms for entertainment and education. Firstly, a motivation paradigm that uses the game to seduce the gamer to allocate attention to the provided information. This results in an intrinsic motivation to process the educational content. Secondly, reinforcement, whereby entertainment is seen as a reward for repeating and rehearsing the information. Lastly, a more implicit model of learning is represented by the blending paradigm. Here the content is integrated in the games narrative, and due to an entertaining environment, the player gets incidentally exposed to it (Ritterfeld and Weber, 2006).

Besides the paradigms of the relationship of entertainment and education, it is necessary to understand how entertainment in games manifests. When it comes to computer games in particular, Csikszentmihalyi's (1988) flow construct, which describes an optimal balance between the user's skills and the challenge, is seen as a major framework to explain entertainment (Chen, 2007; Jegers, 2007; Sherry, 2004). It manifests in a form of time distortion, a sense of control, and a presence and immersion in the activity accompanied by a strong positive emotional feeling (Nakamura and Csikszentmihalyi, 2002) which people refer to as the "optimal experience", which induces an extreme and positive feeling of enjoyment (Csikszentmihalyi and LeFevre, 1989; Sherry, 2004).

As the aim of this research study was to investigate how more complex knowledge can be conveyed, a deeper elaboration is needed. Yet how does flow influence the persuasive effects? Drawing on the rationale of the Elaboration Likelihood Model (ELM) (Petty and Cacioppo, 1986; Petty, Cacioppo, Strathman, and Priester, 1994), flow can increase the motivation as well as the ability to process information.

Based on the intrinsically motivated instruction theory of Malone (1981), if a game is challenging (uncertain in its outcome, multiple levels, adaptable to the skills), engages curiosity (sensory, and the balance of the information provided with riddles and questions, thus meeting again the skills of the recipient), as well as engages fantasy, it should evoke intrinsic motivation toward processing instructional content. These motivational factors are in line with the major factors related to flow: challenge, a high concentration, a feeling of mastery and a feeling of presence and immersion in the activity (Nakamura and Csikszentmihalyi,

2002). Thus, if a game engenders a more flow-like feeling, this should lead to a willingness to remain in the game as the situation is pleasing. In particular, the self-control of exposure time is essential. This ability to control how long someone is willing to be exposed to a medium or situation is related to the mood state. In other words, if a situation is pleasing we tend to remain in it. As Mackie and Worth (1989) observed, self-control of exposure time is related to good mood and in this condition strong arguments lead to an attitudinal change and memory effects. This is particularly important for persuasion with games as a person will only process the claims as well as keep in the gameplay if he or she enjoys the game. Furthermore, an entertaining experience can also foster the ability to process information. Players usually pay focused attention to the gameplay and the story of the game (Grodal, 2000) in which the player gets immersed. Another fact is that as flow increases arousal and activation (Marković, Petrovic, Kittl and Edegger, 2007), repetition and replay intentions are also increased (Waiguny et al., 2011), which at the end increases the ability to process the message more comprehensively. If the player completes more levels in the game, it is more likely that he or she gauges the whole story and the whole educational content as well as the purpose of the serious game. Thus, overall flow increases the exposure time and therefore the motivations to play more levels, which subsequently leads to an effect of knowledge gain.

***H1a:** Flow has an indirect positive effect on learning outcomes. More specifically, this effect is mediated by the numbers of levels played.*

***H1b:** The more levels played the more educational content could be conveyed, resulting in a more accurate knowledge about the topic addressed in the serious game.*

Finally, if education through the game is successful, changes in behavior, knowledge, skills, intentions and motivations should be observable (Blumberg et al., 2013; Connolly et al., 2012). In the case of a serious advergame concerning nutrition, the gamer should, after having played the game, be able to apply this newly gained knowledge for the evaluation of products, which is reflected in the attitude toward them. For example, a game which explains the nutritional benefits of ingredients, different combinations, etc. may influence the player's attitudes toward food products in light of this newly gained information. Based on the understanding of brand and product beliefs to form attitudes toward the brand (Barnard and Ehrenberg, 1990; Mittal, 1990), gamers with longer exposure to the game might generate new or revised beliefs. For example, if a game shows that whole grain products contain more fiber and are therefore superior compared to processed grains, the gamer might show more favorable atti-

tudes toward products which contain more whole grain ingredients. Similarly, if the use of E numbers is explained, gamers will believe that products containing a low number or only safe E numbers are more favorable. Thus, if a game is about healthy food, after playing the game the gamer should have a more favorable attitude toward more healthy food options, and a less favorable attitude toward less healthy food options. Furthermore, it is expected that with increased exposure the player also gains new knowledge to interpret further information provided by marketers, like organic seals and labels such as “light”, “low fat”, etc. This may also result in players reconsidering strong claims like the label “light”. Thus, if a product is labeled as light but in fact the nutritional information contains a lot of artificial ingredients and high amounts of sugars or fats, players who played more levels should rate these products as less favorable, as they are able to interpret the product ingredient information more accurately.

***H2:** The more levels played, the more likely players will be able to interpret provided information of the products. More specifically, the more levels played, the more likely the players will show positive attitudes toward more healthy products while attitudes toward less healthy ones should grow more negative with longer game play.*

***H3:** The more levels played the more likely players will be able to identify whether a “light” product is really light in its nutritional value. Consequently, if a “light” labeled product is not light, a less favorable attitude should be observed, while for real “light” products favorable attitudes should increase.*

3 Study

To investigate the proposed hypotheses, a mixed quasi-experimental design was applied. The stimulus was an educational advergame providing nutritional facts and ingredient information on packages.

3.1 Methodology

3.1.1 Design

Participants were invited to play, as long as they wanted, a serious game dealing with nutrition. The game was provided on the website of a major middle-European grocery chain and was a tool to promote a recently introduced information card about the ingredients and their nutritional facts, whereby not only the amount of calories was considered, but also the combinations and balance of

fats, carbohydrates and protein. Different artificial and natural ingredients were also explained, as well as how to read an ingredients list. The game referred to this information and also considered the latest findings from nutrition sciences, and the supporting information was frequently updated (Billa, 2012). The game was available from late 2010 to early 2011, and consisted of six levels. Each level dealt with a fact about nutrition explaining the different parts in the nutritional pyramid, and referred to what a person should look for in a list of ingredients. Further information for interested players was provided by reference to websites and brochures.

Each level was organized as follows. First the gamer had to complete a set of puzzle or riddle style games. The riddle was broadly related to the content of the level. After losing or completing the quest, the gamer received further information about nutrition and proceeded to the next sub-quest per level. Overall a score was calculated, and the gamer had three attempts. The information was about the basic nutritional benefits of the ingredient (e.g., water, fat, sugar) but also what the person should look for when reading the nutrition information on the package. Furthermore, healthy combinations of the three main nutrients, as well as additional ingredients like coloring, different E numbers, etc., were addressed. Level 1 explained the importance of water and compared it to sugary drinks, level 2 addressed vegetables and fruit vs. processed food. Level 3 addressed carbs but this time explained different types of bread and grain products and how this contributes to nutrition. Level 4 showed differences between different types of fat and how much fat intake should occur. Level 5 discussed the value of meat and high protein products like eggs and dairy products. Finally, Level 6 addressed the problems of too much sugar intake.

Four different fictitious products based on comparable available products were used to create the within-subject factor. Two of the products were labeled as a “light option” although only one product was somewhat more healthy compared to the others. To make it not too obvious only readymade and packed food was chosen, and the focus was the list of ingredients and how much participants understood. The participants were only shown the name, the slogan, and the list of ingredients. No calorie or further information was included.

As reported in Table 1, the chicken dish was the best choice, providing a fair distribution of carbs, protein and fat, and containing unsaturated fats and also vegetable components. The fish fingers were a less healthy savory option, as they contained white bread and a high level of (mostly saturated) fat. Finally, although labeled as “light”, the yog-gums (a wine gum like candy) had a similar amount of calories as the muffins; however, about 90% of the calories in the yog-gums came from short chained carbs, particularly sugar, and they contained a lot of flavor enhancers, as well as artificial and non-artificial aromas. According to the information in the game, the muffins were more equally distributed in

their ingredients in means of carbs, fat and protein. If a gamer understood and learned from the game, he or she would be able to rank these alternatives accordingly.

Table 1: Within-subject factor, products to evaluate

Product Variable name	Slogan (translated)	Ingredients (translated)	Approx. Kcal.	Protein	Carbs (sugars)	Fat (saturated)	Sodium (sodium)	Fibers
“Huhn Marocco” Chicken	“The light ready meal for epicures”	Couscous cooked 38% (water, wheat semolina, coriander, vegetable oil, iodized salt, capsicum flakes), tomatoes; chicken pan fried 17% (chicken, starch, vegetable oil, salt, sugar, spices); lemon-olive-oil dressing 11% (water, lemon juice of lemon concentrate, olive oil, honey, salt, spices, thickening agents: xanthan, capsicums, onions, squash, chickpeas, canola oil, salt, modified starch, vinegar, chili, sugar, herbs, spices)	95	6.1	12.0 (1.0)	2.1 (0.2)	0.5	1.6
“Fischstaebchen” Fish Fingers	“The crispy fun”	Alaska Pollock 65%, wheat bread-crumbs, vegetable oil, wheat flour, potato starch, salt, spices.	191	13	17.0 (1.2)	8.0 (3.0)	0.43	0.9
“American Muffins” Muffins	“Muffins for all who love chocolate bits”	Wheat flour, sugar, 21.9% chocolate chips (sugar, cocoa, cocoa-butter, emulsifier, soy lecithin, aroma, vanillin), wheat starch, fruit sugar, baking powder (dinitriumdiphosphat, natriumhydrogencarbonat), thickening agent: xanthan, carramellose, corn starch, emulsifier (E 475, E 471, E 433), aroma.	379	5.5	41.0 (20.0)	21 (2.9)	0.38	1.9
“Yog-Gums” Yog-Gums	“The light alternative for the sweet tooth.”	Glucose syrup, sugar, skim milk yoghurt powder 7.5%, galatine, acids: citric acid, milk acid, concentrated apple juice, milk protein, fruit and vegetable extracts (nettle, spinach, curcuma, elderflower, paprika), aroma, ascorbic acid, nicinamid, alpha-tocopherolacetat, calciumpantothenat, pyridoxinhydrochlorid, biotin, lutein, cobalamin, parting agents: canola oil, bee wax, carnauba wax.	333	5.6	75.9 (55.3)	0.2 (0.2)	0.1	0.1

3.1.2 Measures

The independent measure “FLOW” was assessed by using a 10-item German short flow scale from Rheinberg et al. (Engeser and Rheinberg, 2008; Rheinberg, Vollmeyer and Engeser, 2003) assessed on a 7-point scale. How many levels the gamers played was assessed by asking them to which level they proceeded. To check these levels, the gaming time was assessed in two ways:

first by asking the participants how long they approximately played the game, and secondly by measuring the time from leaving to re-entering the survey.

The dependent variables consisted of an attitude measure of the products using a 5-item semantic differential scale (bad–good, don’t like–like, terrible–terrific, unattractive–attractive, negative–positive) for each product. Right after these ratings the participants expressed in an open question answer what they believed the game was about. These open questions were coded afterwards using 1 for “water is more healthy than energy drinks”, 2 “generally healthy nutrition”, and 3 “that you could compare and identify ingredients of products”.

Using the attitude measures of the products, as well as the learning outcome measures, an overall learning index was calculated according to the following coding scheme: 1 point was allocated if the savory products were rated more favorably than the sweet ones; 1 point was assigned if chicken was rated best (another point if the chicken was rated better than the fish fingers); 1 point was allocated if the yog-gums were less positively rated than the muffins, and finally a point if the order “chicken, fish finger, muffin, gums” was observed according to the attitude ratings. Together with the measure of the understanding of the intentions of the game’s message, an index ranging from 0 to 8 as an overall indicator for the learning outcome of the game was calculated.

3.1.3 Procedure

The participants were invited through three graduate classes of a mid-sized European university where students received an invitation to the study via email. After a short introduction, they were instructed to play the game as long as they wanted. After returning to the online survey, participants first completed the questions about flow, followed by questions about the products and finally the open questions. Basic demographics were assessed at the end.

3.1.4 Sample

In total, 117 participants opened the survey, but after the first page around 50% dropped out. Finally, 52 persons completed the whole survey (average age: 23.96 years, 60.4% female). Fifteen played only one level, 19 two levels, and 18 three or more levels (8 three, 2 four, 2 five, 6 six). Twenty participants played for less than 5 minutes, 20 played from 5–10 minutes, and 12 played more than 10 minutes. A cross tab confirms that the reported gaming time increases with the reported levels played, and similarly the means of the recorded time increase with the levels played.

3.2 Results

Out of the 10 items a FLOW index was calculated (Cronbach's alpha = .84, $m = 4.05$, $sd = 1.23$). The same procedure was applied for the attitude of the products (chicken: Cronbach's alpha = .84, $m = 3.06$, $sd = .758$; fish finger: Cronbach's alpha = .86, $m = 3.02$, $sd = .793$; muffin: Cronbach's alpha = .82, $m = 2.79$, $sd = .757$; yog-gum: Cronbach's alpha = .89, $m = 2.81$, $sd = .883$). The learning outcome index was on average 3.48, $sd = 1.698$.

H1a proposed that flow creates the motivation to play more levels and therefore positively influences the learning effects. To test this mediation hypothesis, the indirect procedure of Preacher and Hayes was performed (Preacher and Hayes, 2008; Zhao, Lynch and Chen, 2010) using flow as an independent variable, the reported level as mediator and the learning index as a dependent variable. The overall mediation test yielded a significant mediation (lower BC = .0112, upper BC = .3656, $p < .05$). The path from flow to the levels played is positive (.183, $p = .043$) as well as the influence of the levels on the learning outcomes (.731, $p = .017$). As the indirect (mediated) path is significant the next check is whether the direct path from flow to the learning outcome is significant in the overall model (Zhao et al., 2010). This relationship is not significant (.040, $p = .833$). Thus there is only an indirect effect of flow on the learning for this specific form of game. Flow thereby encourages the gamer to stay in the game and process more content. Thus H1a is confirmed by the data. Further exploration using a one-way ANOVA with the levels played as IV and the learning outcome variable as DV yielded insignificant differences ($F(2,49) = 3.903$, $p = .027$). Contrast analyses revealed that between the participants who played only one level the learning outcome index ($m = 2.53$) was significantly lower compared to those who played two levels ($m = 3.68$, difference = 1.15, $t = 2.071$, $p = .044$) as well as to those who played 3 levels or more ($m = 4.56$, difference = 1.53, $t = 2.707$, $p = .009$). However, the difference between two levels played and three or more levels played was not statistically significant. H1b is therefore partially supported.

H2 investigated whether the levels played in the game affect the attitudes toward the presented products. A within-subject repeated measures ANOVA was calculated with the levels as IV and the attitude ratings of the four products as a within-subject factor. The analysis reveals a significant within-subject interaction effect of the products and the played levels ($F(6,147) = 2.534$, $p = .023$). Figure 1 depicts the mean scores and the trend showing that generally the longer the game was played the less favorable the yog-gums were rated. In contrast, the ratings for the muffins surprisingly increased strongly and, as assumed, the ratings for chicken increased. Contrast analyses show that for the overall comparison of all products, significant mean differences were observed only if three or more levels were played ($F(3,47) = 3.741$, $p = .017$). This is due to the fact that

the yog-gums are significantly less positively rated compared to all three other options.

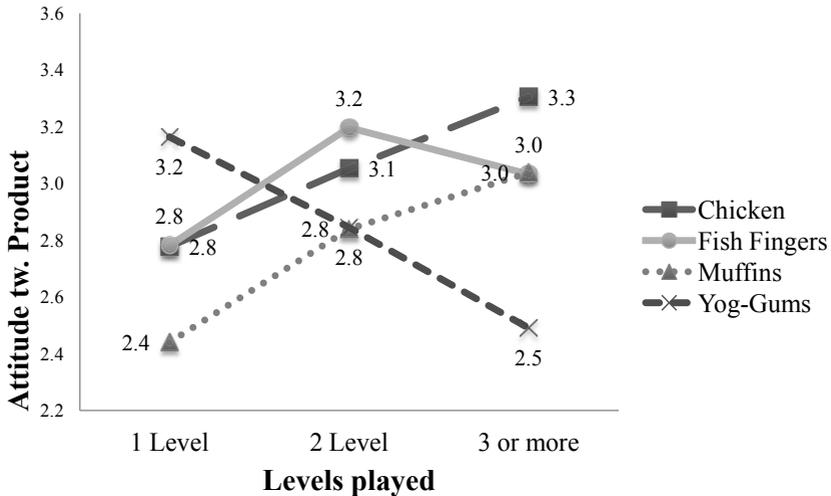


Figure 1: Attitude as function of levels and the product type (within-subject)

H3 proposed that with an increased number of levels played, products labeled as light, but that were in fact not better than a non-light labeled option, would receive less favorable ratings if the label contrasted the ingredients. Conversely, if ingredients indicated the product is a real light option, this should lead to more favorable attitudes. The first was tested with sweet products, the latter with savory products. To investigate this for the savory as well as for the sweet option a two-factor within-subject repeated measures ANOVA was calculated. Results show no significant within-subject factors ($F(2,49) = .623, p = .541$) for the savory products. However, for the sweet products the proposed effect was found. The “light” labeled yog-gums ($m_{1 \text{ level}} = 3.16, m_{2 \text{ level}} = 2.85, m_{3 \text{ or more level}} = 2.49$) were consistently less favorably rated the more levels were played, while for the muffins favorable attitude ratings increased ($m_{1 \text{ level}} = 2.44, m_{2 \text{ level}} = 2.84, m_{3 \text{ or more level}} = 3.20$). This within-subject interaction effect was significant ($F(2,49) = 3.306, p = .006$). Contrast analyses showed a significant difference between the sweet light and non-light product if only one level was played ($F(2,48) = 3.277, p = .046$) as well as a difference on a $p < .1$ level for the 3 or

more levels condition ($F(2,48) = 2.779, p = .072$). The data therefore partially confirms H3 for sweet products and identifying if a product is really light.

4 Discussion and Implications

The study sheds some light on the relationship of entertainment and persuasion by investigating the role of flow in an educational advergame. As hypothesized, the more the players are in a flow-like situation, the more learning effects occur. This effect is mainly mediated by the motivation to play more levels and spend more time with the game, resulting in learning and knowledge gain.

Based on this knowledge gain, it is further demonstrated that attitude ratings for products are more accurate and based on nutritional information, and that the participants were able to identify even a “light” labeled option as not really light.

The study provides an important theoretical contribution if an advergame or a serious game tries to convey a more complex story than just a simple brand placement. For more complex content, entertainment is an essential enabler as it motivates the gamer to stay in the game and also to process the shown content. That there was not a notable knowledge increase if more than three levels were played could be due to the fact that the sample was quite small, and only six participants entered level 6 and were exposed to the whole game content. However, the overall trend shows that flow is the driver for the motivation to play and that with increased exposure time and levels played the persuasion effects increase.

Finally, some limitations should be addressed. First, future studies might manipulate the levels played. However, it should be considered that limited and unlimited exposures are different in the persuasion effects (Mackie and Worth, 1989), and to simulate reality an unlimited approach might be more suitable. Also, different additional product information like calorie tables, food indicators, etc. might be used, as this research was limited to showing ingredients only. As demonstrated in Waiguny et al. (2012), there is likely to be an inverted u-shaped relationship between challenge and persuasion, while this research only investigated the level of flow and did not differentiate between bored and over-challenged for the low flow levels. Thus future studies might investigate how challenge moderates the effectiveness of educational games. Also, implicit effects and learning with games is a wide area of research, which recently gained more consideration (Waiguny et al., 2013) that may lead to further investigation of the entertainment–persuasion link.

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Cross-Media Synergy: Exploring the Role of the Integration of Ads in Cross-Media Campaigns

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1 Introduction

In the current media landscape, advertisers can choose numerous media for their advertising campaigns. Not surprisingly, almost every campaign in the Netherlands makes use of more than one medium (Bronner, Neijens and Van Raaij, 2003). While we are not familiar with international statistics, it can be expected that the Netherlands is not an exception regarding the widespread usage of multiple media in one campaign.

Basically, there are two reasons why advertisers decide to integrate multiple media in their advertising campaigns. The first reason is to broaden the reach of a campaign (Bronner et al., 2003; Dijkstra, Buijtelts and Van Raaij, 2005). For example, newspapers can be used to reach the older, highly educated part of the target group, while the campaign can be supplemented with online advertising to reach the younger part of the target group. The second reason why advertisers choose to use cross-media campaigns instead of single medium campaigns is the potential to realize synergy effects (Bronner et al., 2003; Dijkstra et al., 2005). Synergy refers to the combined effect of multiple media communications that exceeds the sum of their individual effects (Naik and Raman, 2003). That is, one plus one equals three, or at least more than two. Using multiple media instead of a single medium to communicate a message thus can generate 'extra' effects and improves campaign results (Chang and Thorson, 2004). Over the years, researchers and practitioners have embraced the notion that cross-media campaigns are more effective and produce more positive consumer responses than single-medium campaigns (Bronner et al., 2003; Chang and Thorson, 2004; Chatterjee, 2012; Confer and McGlathery, 1991; Dijkstra, 2002; Edell and Keller, 1989; Naik and Raman, 2003; Voorveld, Neijens and Smit, 2011, 2012).

However, when studying the results of earlier academic cross-media studies in detail, it should be concluded that not all studies show that cross-media campaigns are more effective than single medium campaigns. Thus, while the main conclusion of these studies is that cross-media campaigns result in more positive consumer responses than single medium campaigns, the pattern of results is often more nuanced. The current study tries to explore a possible explanation for

the 'contradicting' results of studies into the effectiveness of cross-media campaigns.

The possible explanation that is explored in the current study is the integration of ads used in cross-media campaigns. Similarity and congruence of the ad execution across the different media is assumed to be an important factor in creating cross-media synergy (Bronner, 2006). The integration of ads in cross-media campaigns might play such an important role because integration links different ads in a campaign to each other. In this way, integration or congruency makes consumers realize that the ads are part of one integrated campaign instead of separate ads. A lack of integration between ads might explain why in some studies cross-media campaigns do differ from single medium campaigns in terms of consumer responses. The first aim of the current study is to review the current cross-media literature to explore whether the lack of integration between ads in cross-media campaigns can explain why cross-media synergy is not always present in earlier research.

The level of integration can only play a role in explaining earlier 'contradicting' results when the integration is not always very good in cross-media campaigns. Content analyses from a decade ago revealed that different ads in a campaign are not necessarily well-integrated (Sheehan and Doherty, 2001; Kanso and Nelson, 2004). Since then, no research has been conducted to examine integration of ads in cross-media campaigns. Therefore, the second aim of this study is to provide preliminary insight into the current state of integration of ads in cross-media campaigns in the Netherlands. By studying the content of real advertising campaigns people are confronted with on a daily basis when they read the newspaper, browse the internet, watch television at home or even are outside on the streets, this study gives insight in how cross-media campaigns look like in the field. By giving insight into the appearance and the possible role of integration of ads in cross-media campaigns, this research is of high practical relevance and may help marketers and advertisers to get the most out of their marketing budgets.

2 Literature review

2.1 *Results of earlier studies into cross-media synergy*

Despite the popularity of cross-media campaigns, academic research still studies advertising effects in isolation by focusing on only one medium (Voorveld, 2011). There are only about a dozen of academic peer reviewed journal articles on cross-media synergy. Within these studies a distinction can be made between experimental studies and field studies. The experimental studies typically have the following design. Participants are forcefully exposed to advertising in a combination of media or to only one of these media, after which consumer reactions in terms of cognition, affects and behaviour are measured. The combination of media is usually presented in two sequences, (medium A, then medium B, or medium B then medium A), to correct for possible sequence effects. In the single medium conditions participants are usually exposed to only one medium twice (medium A, then medium A, or medium B, then medium B). Such repeated exposure is needed to cancel out the alternative explanation that the cross media condition results in more positive consumer reaction simply because consumers were exposed twice, instead of only once to the experimental ad (Voorveld, 2013). Three overarching types of consumer responses were studied in the experimental studies; cognitive responses like ad recall and ad recognition, affective responses like ad and brand attitudes, and behavioural responses like purchase intention. The results of the earlier experimental studies are discussed below, followed by the results of the field studies.

2.1.1 Cognitive responses

Six studies investigated cross-media synergy in terms of cognitive responses. These studies do not reveal a straightforward pattern of results. Regarding cross-media campaigns in which radio and online advertising were combined and compared to online or radio advertising only, no differences were found for half of the measures taken, while for the other half of the measures it was shown that a combination of media was better than a repeated exposure to radio, not than a repeated exposure to Internet (Voorveld, 2011). For the combination of print and television, Tang, Wang and Newton (2007) found that a combination of media was better than only one medium. Regarding the combination of print and online advertising, Wakolbinger, Denk and Oberecker (2009) found no significant differences at all. For the combination of TV and websites, Chang and Thorson found that a combination of media was performing better than a repeated exposure to the same medium. For the combination of print and TV, Edell

and Keller (1989) found no differences on half of the measures, while for the other half of the measures it was found that a single medium condition performed better than the cross-media conditions. Finally, Dijkstra et al. (2005) investigated the combination of TV, Print and Online ads and found that a single exposure to TV resulted in more cognitive responses than exposure to a combination for two-third of the measures taken. Thus, some experimental cross-media studies showed a positive effect of cross-media conditions versus single medium conditions on cognitive responses, while others did not find this effect, or even found a reversed effect.

2.1.2 Affective responses

Eight studies investigated affective responses like attitudes towards the ads and the brand, and again, no straightforward pattern can be detected. Some studies found that cross-media conditions resulted in more positive affective responses than single medium conditions. Chang and Thorson (2004), found a positive effects for one of five measures taken. Tang et al. (2007) found a significant effect on all measures. There are also some studies that found a positive effect only when comparing the cross-media conditions to only one of the two single medium conditions. Voorveld (2011) found that a combination of radio and Internet resulted in more positive affective responses than repeated exposure to radio, but not than the Internet-Internet condition. Voorveld et al. (2011) studied a combination of websites and TV commercials and found that a combination performed better than the website only condition, but not better than TV only. Edell and Keller (1989) found that a combination performed better than radio only, but not better than TV only. Finally several studies found no significant differences at all (Dijkstra et al., 2005; Stammerjohan, Wood, Chang and Thorson, 2005; Wakolbinger et al., 2009). Thus, also for affective measures it should be concluded that cross-media campaigns are not always more effective than single medium campaigns.

2.1.3 Behavioural responses

The six studies that investigated behavioural responses almost all found that a combination of media resulted in more positive behavioural responses than only one of the two single medium conditions. Tang et al. (2007) found that a combination of media performed better than a repeated exposure to TV, not than a repeated exposure to print. Voorveld (2011) found that cross-media campaigns performed better than a repeated exposure to radio, but not than a repeated exposure to internet. Voorveld et al. (2011) found that a combination performed better than the website only condition, but not than the TV only condition. Two studies (Chang and Thorson, 2004; Dijkstra et al., 2005) found no differences

between the cross-media and the single media conditions at all, and Edell and Keller (1989) even found that one cross-media condition resulted in a lower behavioural intention than exposure to TV only (not than radio only). Thus, also for behavioural measures it should be concluded that cross-media conditions did not always result in a higher behavioural intention than single-medium conditions.

2.1.4 Field studies

The field studies did not specifically focus on comparing cross-media campaigns with single medium campaigns. Naik and Raman (2003) concluded based on Kalman filtering methodology that as synergy increases, advertisers should allocate a larger part of the media budget to the less effective medium. The study of Havlena, Cardarelli and de Montigny (2007) investigated synergistic effects of print ads, TV commercials and Internet advertisements (e.g., banners, pop ups) by using respondent level frequency analysis from a media planning perspective. Results showed that banners and pop ups made a small contribution to the effectiveness of the campaign especially for light TV viewers. Finally, Naik and Peters (2009) developed a model on the optimal allocation of the media budget within and across multiple media.

We propose that the lack of integration of ads in cross-media campaigns might explain why not all cross-media studies show more positive consumer responses to cross-media campaigns than to single medium campaigns. In the next section we discuss how integration is defined in this study, then we discuss why integration might be so important after which we discuss earlier research in the integration of ads in campaigns. After this, we will present a small-scale content analysis to see how well-integrated cross-media campaigns are nowadays.

2.2 *Definition and conceptualization of integration*

In this book chapter, integration is defined as the degree to which the ads in cross-media campaigns are similar or make use of overlapping elements (Bronner, 2006). Basically, two types of integration can be distinguished (Sheehan and Doherty, 2001): tactical integration and strategic integration. Tactical integration is present when the same visual and verbal elements, also referred to as *retrieval cues*, are used across the different media (Sheehan and Doherty, 2001). These retrieval cues are identifiable ingredients such as slogans, key visuals, symbols and distinctive phrases (Keller, 1996). Strategic integration implies an integration of the different communication efforts on a higher level (Sheehan and Doherty, 2001). More specifically, strategic integration refers to the use of an overarching strategy to move audiences through different stages of

the decision process by integrating the higher objectives of the different communication efforts (e.g. from creating brand awareness to stimulating interest), (Thorson and Moore, 1996). Notwithstanding the importance of the latter, the present research will focus on tactical integration. There are two reasons for the focus on tactical integration. The first is that strategic integration is difficult to assess by the audience based on the campaign ads alone. To assess the strategic integration of ads it is needed to ask brand managers and advertisers about the strategy behind a campaign. The second reason for focusing on tactical integration is that tactical integration is of particular relevance to attain cross-media synergy, an issue we will discuss later. Therefore, throughout this study we will focus on tactical integration of ads within cross-media campaigns.

2.3 Importance of integration between ads in cross-media campaigns

The theoretical notion stressing the need for integration of ads in cross-media campaigns is the framework of Integrated Marketing Communication. Integrated Marketing Communication focuses on the joint effects or synergies of the various marketing activities and media (Naik and Schultz, 2007). Integrated Marketing Communication suggests that all communication efforts, and thus the ads in all media, should speak with one voice. Also when ads in different media are not integrated by the company itself, consumers will integrate the information they receive from various media themselves. Companies might want to prevent that consumers integrate different ads from one brand in an inconsistent way because this can result in unintended perceptions of their brands (Naik and Schultz, 2007)

Also in the cross-media literature itself there are some theoretical ideas that state that it is important to carefully integrate ads in several media. Two experimental studies have given insight into why cross-media campaigns can lead to synergy. These studies suggest that two or three psychological processes might explain why cross media campaigns are generally more effective in terms of cognitive, affective and behavioural consumer responses than single medium campaigns. Both experimental papers investigate the same three processes. The first process is priming (Dijkstra 2002) or forward encoding (Voorveld et al., 2011), which means that exposure to the ad in the first medium triggers interest in the ad in the second medium. The second process is image transfer, which means that consumers think back to the ad in the first medium when they are exposed to the ad in the second medium (Dijkstra 2002; Voorveld et al., 2011; Bronner 2006). This process is called radio replay in an early study into the topic by Edell and Keller (1989). The third process is multiple source perception, which indicates that people see ads from several sources as independent sources of information and because such cross media campaigns should be very

expensive, the advertised brand must be good (Voorveld et al., 2011; Dijkstra 2002).

Central to these processes is the fact that consumer think back or forward to other media when they are exposed to an ad in a certain medium. To facilitate these processes to take place, it is important that retrieval cues present in one medium are also present in another medium. In other words, a high level of integration of ads between media is needed because this integration facilitates the psychological processes to occur, which ultimately can result in cross-media synergy. In conclusion, both work on Integrated Marketing Communications and cross-media effects stress the importance of a good integration between ads in a cross-media campaign.

2.4 Empirical research on integration of ads in cross-media campaigns

To our knowledge, there are two studies that assessed the integration of different marketing communication efforts (i.e. Kanso and Nelson, 2004; Sheehan and Doherty, 2001). In contrast to the present study however, these studies did not specifically focus on cross-media campaigns, but on the integration of print ads and websites. First Sheehan and Doherty (2001) performed a content analysis to assess the level of integration between websites and print advertisements. They did not only analyse 186 advertisements from 20 magazines, but they also developed a valuable code scheme.

To assess tactical integration, Sheehan and Doherty analysed which creative elements were used in both print advertisements and websites, such as: logo, product picture, slogan, spokesperson, key visuals, and colours. It was found that although many advertisers succeed in tactically integrating their websites and print advertisements to some extent, elements such as the slogan and the spokesperson were less likely to be used in both communication efforts (Sheehan and Doherty, 2001).

Second, Kanso and Nelson (2004) investigated the integration of companies' websites and print advertisements in six major American magazines. Next to investigating the placement of web addresses in print advertisements, the study also investigated the integration between the two media. A total of 413 advertisements were analysed on several aspects. The authors compared the number of product visuals and the amount of product information on the website and in the print advertisements. It was also coded whether the print advertisement included a specific URL and if the advertised product could be easily located on the website referred to.

Results showed that print and online advertising efforts are pretty well integrated in terms that the website showed more product visuals and product information than the print advertisements. In addition, the promoted product could also be relatively easily located on the website. Only a third of the print adver-

tisements specifically mentioned a web address. Kanso and Nelson (2004) concluded that the integration between print ads and websites should be enhanced. Conclusion of both earlier studies is that despite the wide-spread idea that ad execution should be consistent across websites and print ads good integration is not always present. The lack of integration between ads might be caused by the fact that many advertising agencies are operating under tremendous time pressure (Aronson and Zeff, 1999).

3 Content analysis

Because the literature review showed that the level of integration of ads in cross-media campaigns can be a key factor in explaining cross-media synergy, we performed a content analysis to give insight into the current state of integration of ads in cross-media campaigns in the Netherlands.

3.1 Sample

All campaigns selected for this small-scale content analysis were Dutch cross-media campaigns broadcasted nationally between March 2010 and December 2011. Each campaign was selected to make use of two or more different media, ranging from TV, print, online and online video to outdoor advertising. It is important to note that the medium radio was not included in the coding process. This was done because of the single modality nature of this medium; because radio is an audio-only medium visual elements cannot be coded, resulting in a lower integration of campaigns that include radio. In total 12 cross-media campaigns belonging to 12 different brands were selected. These brands can be categorized into three different product types: service brands, durable goods, and non-durable goods. For an overview of the campaigns that were analysed in this study, see Table 1.

3.2 Coding instrument

To assess the integration of the selected cross-media campaigns, the coding instrument included seven elements that are traditionally included in advertising. These elements were based on the coding instrument developed by Sheehan and Doherty's (2001) to analyse the tactical integration of print advertisements and websites. Integration was determined by analysing whether the different campaign elements were consistent across ads placed in different media. Thus, it was coded whether different ads within a cross-media campaign consistently included visual elements (i.e. 1. product/service logo, 2. key visual, 3. product picture, 4. colours and 5. spokespeople) and verbal elements (i.e. 6. single most important message and 7. slogan).

Table 1: Overview of the cross-media campaigns included in the content analysis.

<i>Product type</i>	<i>Market</i>	<i>Brand</i>	<i>Media included</i>	<i># media</i>
Services	Financial services	1	TV/ Radio/ Outdoor/ Online	4
		2	TV/ Radio/ Outdoor/ Online	4
	Insurances	3	TV/ Online/ Online Video	3
		4	TV/ Radio/ Print	3
	Mobile network providers	5	TV/ Online	2
		6	TV/ Radio/ Print/ Outdoor/ Online	5
		7	TV/ Radio/ Print/ Outdoor/ Online	5
Durable goods	Televisions	8	TV/ Online	2
	Mobile phones	9	TV/ Online Video	2
Non-durable goods	Cheese	10	TV/ Online Video	2
	Drinks	11	TV/ Online Video	2
	Fashion	12	Print/ Outdoor/Online	3

3.3 Procedure and inter-coder reliability

All campaign ads were coded by two coders. For each campaign, it was determined by both coders whether integration between the campaign ads was present (score 1) or absent (score 0) for all seven elements. A total index score of integration was calculated for each campaign by dividing the total integration score by the maximum integration score of 7 (*100). It is important to note however,

that when one of the advertising elements was absent in all campaign ads, the integration score was computed on the remaining elements. Inter-coder agreement on all elements was very high (96.4%). Differences were solved upon discussion until 100% agreement was achieved.

4 Results

Cross-media campaigns on average scored moderately on integration ($M = 70.3$). Cross-media campaigns had the best integration regarding the presence of the logo (integration present in 100% of the campaigns) and the key visual (integration present in 92% of the campaigns). The largest part of the campaigns also consistently used the same colours (integration present in 92% of the campaigns). Integration with regard to the slogan was also present in the majority of the campaigns (integration present in the 75% of the campaigns). Campaigns were the least integrated with regard to the spokesperson and single most important message in the ads (integration present in 33% of the campaigns). Thus, while campaigns generally communicated the same logo, key visual, colours and slogans, they were very dissimilar regarding the spokesperson used and single most important message communicated.

A one-way analysis of variance showed that integration index scores did not differ significantly across the different product types (e.g. services, durable goods and non-durable goods), $F(2, 9) = 1.02, p > .10$. Nor did integration index scores differ as a function of the number of media included in the campaigns, $F(3, 8) = .08, p > .10$. Thus, when brands integrated more media in their campaigns, this did not negatively or positively influence the integration between the ads in the campaign. For an overview of the integration index scores per product type, see Table 2.

Table 2: Integration index scores as a function of product type

	<i>Services (N=7)</i>	<i>Durable goods (N=2)</i>	<i>Non-durable goods (N=3)</i>	<i>Total (N=12)</i>
Product/service logo	100.0	100.0	100.0	100.0
Key visual	85.7	50.0	100.0	91.7
Product picture	-	100.0	100.0	100.0
Colours	100.0	50.0	100.0	91.7
Spokespeople	14.3	50.0	66.7	33.3
Message	28.6	50.0	33.3	33.3
Slogan	57.1	100.0	33.3	75.0
Integration index score	64.28 ^a	71.43 ^a	84.92 ^a	72.63

Note. Cell values indicate percentage of campaigns in which integration was present on each aspect. The last row displays integration index scores for each product type.

5 Conclusion and Discussion

The aim of the current study was twofold. By studying the literature, we aimed to explore whether the lack or presence of integration between ads in cross-media campaigns can explain why cross-media synergy is not always found in earlier studies. Based on theory on psychological processes underlying cross-media synergy, we conclude that the integration of ads in cross-media campaigns seems to play an important role in stimulating cross-media synergy. It seems that when a good integration is present, there is a larger chance that cross-media campaigns are more effective in terms of consumer responses than single medium campaigns.

The second aim was to provide preliminary insight into the current state of integration of ads in cross-media campaigns in the Netherlands. By giving insight into the current state of integration of cross-media campaigns we could explore whether our idea about the role of integration is feasible. When campaigns are very well-integrated nowadays, there is small chance that the level of integration could still play a role in the realization of cross-media synergy. The results of a small scale content analysis showed that while the overall integration

of ads in cross-media campaigns was reasonably, integration regarding the spokesperson used and single most important message communicated was much lower. Therefore the general conclusion of this book chapter is that the level of integration of ads in cross-media campaigns might be an important factor in explaining cross-media synergy and therefore requires further research.

5.1 *Limitations and future research*

While the current study gave an in-depth literature overview on cross-media synergy and the possible role of integration of ads in cross-media campaigns, the study also has its limitations. The most important limitation of the current study is the preliminary nature of the content analysis. By analysing 12 Dutch cross-media campaigns, we gave insight into the state of integration between ads in cross-media campaigns in the Netherlands, but the conclusions drawn should be treated with caution. A larger scale, preferably international content analysis should be performed to give a more definite insight into the state of integration of ads in cross-media campaigns.

By performing an additional content analysis on a larger scale several additional comparisons can be made. It might for example be interesting to distinguish between different combinations of media. It is not clear whether the degree of integration differs for varying media combinations. More importantly, by examining the integration of ads in cross-media campaigns, we did not take into account the complementary effect of the different media (Bronner et al., 2003). Each medium has its own strengths and weaknesses, such that TV is best suited for attracting attention, whereas print is more suitable for elaborating on the topic and giving more detailed information (Bronner et al., 2003). In this research we did not take into account the fact that the integration between ad executions is also affected by the specific strengths and weaknesses of each medium. Moreover, it should be recognized that marketers often deliberately choose to use different ad executions across the media. After all, an online advertisement is better suited to stimulate purchase or to stimulate consumers to click through to the advertiser's website than a TV ad (Dijkstra et al., 2005).

Future research is also needed to test whether the integration of ads in cross-media campaigns indeed provides an explanation for synergy effects. While there are multiple theoretical arguments for the importance of ad integration, empirical research is needed. Such research could be based on experimental research in which consumer responses to a well-integrated cross-media campaign are compared to the responses to a non-integrated cross-media campaign. It might also be interesting to combine a content analysis of real campaigns with survey research to enhance our understanding of cross-media effects in real-life.

5.2 Implications for practitioners

The results of the literature review and content analysis conducted in this book chapter have implications for advertisers and media planners. On the one hand, the literature review showed that there are indications that the degree of integration of ads in cross-media campaigns plays a role in the realization of cross-media synergy. On the other hand, the content analysis showed that cross-media campaigns of twelve recognized and well-known brands in the Netherlands are only moderately integrated. Therefore, advertisers and media planners could strive for an even better integration of the different ads in their cross-media campaigns. Advertisers could specifically focus on a better integration of the spokespeople used in multiple media and single most important message communicated throughout ads in several media. A good integration of ads in cross-media campaigns also requires a good collaboration between media exploiters and the different agencies involved in a cross-media campaign (Bronner, 2006).

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Part III. Perceptions of Advertising

Health versus Appearance Focus in One- versus Two-sided Messages Discouraging Sun Tanning

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1 Introduction

Despite the widespread awareness of the negative consequences of unprotected UV exposure, sun tanning is still a common practice among many people in western countries (Heckman, Wilson, and Ingersoll, 2009). Sun tanning increases the risks of skin cancer and photo-aging (Hoegh et al., 1999; Turrisi et al., 1998). Consistent findings across studies show that most people have sufficient knowledge of these risks, but this knowledge does not always transfer into behavioral intentions to limit UV exposure (Arthey and Clarke, 1995). Hence, there is still a strong need for adequate prevention campaigns.

To date, most health prevention campaigns aim to increase risk awareness of several unhealthy behaviors (e.g., binge drinking, smoking, or sun tanning) among people, by emphasizing the risks associated with certain unhealthy behavior. This mere focus on the negative aspects of unhealthy behavior is one-sided. Overuse of such one-sided negative appeal can lead to habituation, possibly evoking a saturation effect (Ahn et al., 2011; Devlin et al., 2007). The present study assesses an alternative and potentially more persuasive way of communicating health risks: two-sided messages, “in which the communicator takes into account both sides of an issue, but actually still favors one side” (Hovland, 1954). A variety of studies show that commercial advertising messages that include some negative information along with the positive product information can still be more effective than when only positive information is provided (Crowley and Hoyer, 1994; Pechmann, 1992). However, the two-sided message strategy is mainly applied to commercial product advertising (Eisend, 2006). A few notable studies applied two-sided messages to health communication (e.g., Belch, 1981 selling toothpaste; Ford and Smith, 1991 promoting organ donation; Ley et al., 1977 promoting weight loss), but – to our knowledge – this principle has not been tested in a reversed way (i.e., to discourage unhealthy behavior). The current study investigates two-sided messages in a reversed way by focusing on the negative consequence of certain unhealthy behavior while also mentioning a minor positive aspect of that behavior, which often is the main motivator for individuals to perform the unhealthy behavior.

Often, individuals engage in unhealthy behaviors such as smoking, eating junk food, or sun tanning, because they perceive certain benefits or pleasures of this behavior. These perceived benefits often impede behavioral change. Western studies have shown that sun tanning is primarily done because people believe a tanned skin enhances their attractiveness (Heckman et al., 2009). Literature suggests that appearance-related motivations are the primary reason for sun tanning (Heckman et al., 2009; Jones and Leary, 1994; Turrisi et al., 1998). However, most of the previous skin cancer prevention literature focuses on health-related, instead of appearance-related attributes to provoke attitudinal changes. More recent studies show that such tanning interventions, solely focusing on health aspects (such as skin cancer) without a focus on appearance, may fall short (Heckman et al., 2009).

In the present study we use a 2 x 2 between-subjects factorial experimental design, by means of which we investigate the effectiveness of health versus appearance focused one- and two-sided messages on individuals' intentions to suntan.

2 Theoretical Framework and Hypotheses Development

Ample previous studies comparing one- versus two-sided messages were based on dual processing theories, such as the Elaboration Likelihood Model (Eisend, 2007). According to these theories, two-sided messages – incorporating both sides of an issue – would be perceived as more unusual (or less conventional) than one-sided messages, thereby motivating individuals to pay more attention to the message (Eisend, 2006, 2007). In contrast, one-sided messages represent the type of communication that the individual is normally expecting, resulting in relatively less attention towards the message (Crowley and Hoyer, 1994). Eisend (2006) confirmed these expectations in his meta-analysis. Hence, we expect that:

H.1 A two-sided anti sun tanning message attracts more attention than a one-sided anti sun tanning message.

Previous research established that two-sided messages are more likely to trigger elaborate, in-depth processing than one-sided messages (Crowley and Hoyer, 1994; Eisend, 2006; Faison, 1961). Two-sided messages lead to a deeper message scrutiny and a more accurate focus on the message content than one-sided messages (Crowley and Hoyer, 1994; Eisend, 2006; Faison, 1961; Kamins and Assael, 1987). Hence, because of this deeper message scrutiny, we expect that the message content will be remembered better when the message is two-sided instead of one-sided.

H.2 A two-sided anti sun tanning messages generates a higher message content recall than a one-sided anti sun tanning message.

Under conditions of more elaborate message processing, individuals are more likely to engage in issue-relevant thinking by carefully evaluating the arguments in the message (Petty and Cacioppo, 1984). Hence, when the message is two-sided instead of one-sided, more emphasis is put on the particular arguments in the message (Crowley and Hoyer, 1994; Eisend, 2006). In other words, since a two-sided message's content is more thoroughly scrutinized than a one-sided message's content, the relevance of the arguments used in the message is expected to be more influential in a two-sided message than in a one-sided message.

The present study investigates appearance versus health focused arguments about sun tanning. The relevance of arguments depends on the particular motive underlying the behavior or the issue at hand (Pham, 1998). Several studies have shown that sun tanning is primarily driven by appearance rather than health motivations (Heckman et al., 2009; Jones and Leary, 1994; Turrisi et al., 1998). For instance, ample Western studies have found that individuals with a high appearance motivation are generally more prone to risky sun tanning behavior than individuals with a low appearance motivation (Shoveller et al., 2003; Leary et al., 1997; Heckman et al., 2009). Leary et al. (1997) found that high appearance motivated respondents most strongly endorsed the importance of having a tan, spent more time in the sun, were least likely to use sunscreen and were more likely to use tanning beds (Leary et al., 1997). It thus seems that individuals mainly suntan for appearance reasons.

If sun tanning is inherently driven by appearance motives, rather than health motives, appearance focused arguments will be more relevant, and thus more effective, than health focused arguments. More precisely, we expect a difference between one- and two-sided messages. Two-sided appearance focused messages against sun tanning will be more effective than their health focused counterparts. When a message is one-sided, however, the impact of argument focus (i.e., appearance versus health focus) is expected to be minor, as individuals focus less on the message content (i.e., the issue-relevance of the arguments) in a one-sided message than in a two-sided message. We therefore expect that:

H.3 When an anti sun tanning message is two-sided, an appearance focus leads to lower intentions to suntan than a health focus. This effect is expected to be less strong when an anti sun tanning message is one-sided.

3 Method

3.1 *Design and stimuli*

A 2 x 2 between-subject factorial design manipulated message sidedness (one-sided versus two-sided) and argument focus (health versus appearance). Message sidedness was manipulated through different arguments: one argument against sun tanning versus the combination of one argument against and one argument in favor of sun tanning. The focus of the arguments was manipulated by the types of arguments chosen: “Sun tanning helps to maintain vitamin D levels, but causes skin cancer” (health focused arguments) and “Sun tanning gives you an attractive tanned skin, but causes wrinkles” (appearance focused arguments). Apart from the manipulations, the four ads were the same.

The stimuli were pretested among 60 respondents. The same measurement scales as in the main study were used (see hereafter). The results show that the respondents rated the two-sided message ($M = 6.49$) as more two-sided than the one-sided message ($M = 1.45$) on a seven-point semantic differential scale ($t(77) = 20.75, p < .001$). The appearance focused message ($M = 6.77$) scored significantly higher on the seven-point health versus appearance scale than the appearance focused message ($M = 1.50$), ($t(77) = 29.99, p < .001$).

3.2 *Participants and procedure*

A total of 304 subjects participated in the study (69.5 % females, age range 18-65 years). The study deliberately targeted a wide age group, as sun tanning is not limited to a certain age group. The data were collected by means of an online questionnaire. The participants were randomly assigned to one of the four experimental conditions. The respondents received an e-mail invitation to participate in the study, containing a link to the online questionnaire. The respondents were asked to forward the e-mail online to friends and acquaintances, hence the dispersion of the e-mail was based on the snowball method. Prior to exposure to one of the stimuli, the following variables were measured: respondents' appearance and health focus (measured as a personality trait), attitude toward sun tanning and involvement with sun tanning. Next, each respondent was individually exposed to one of the four stimuli. Subsequently, they completed the questionnaire, containing the manipulation check, followed by the dependent variables (i.e., attention to the message, recall of the message content, and behavioral intentions to suntan), age and gender. Finally, they were debriefed and thanked for their cooperation.

3.3 Measures

In line with previous studies (e.g., Eisend, 2006), message sidedness was measured by means of one single item on a seven-point semantic differential scale (“This message only gives arguments against sun tanning” vs. “This message gives arguments against sun tanning but also considers the arguments in favor of sun tanning”). The perceived appearance (versus health) focus of the message was measured by one single item on a seven-point semantic differential scale in analogy with previous studies (e.g., Jones and Leary, 1994) (i.e., “This message emphasizes the effects of sun tanning on one’s health” versus “This message emphasizes the effects of sun tanning for one’s appearance”). Respondents’ self-reported attention towards the message was assessed by five items on a seven-point Likert scale (Laczniak et al., 1989) (e.g., “I paid a lot of attention to the message.”) ($\alpha = .88$). Message content recall was measured by means of an open question in which the respondents were asked to list all content they remembered from the message. A researcher then coded the open answers ranging between 1 (nothing correctly remembered) and 7 (all content correctly remembered). Prior attitude towards the issue was measured by means of a six-item seven point semantic differential scale (e.g., “I think sun tanning is negative versus positive”) (Burgoon et al., 1997) ($\alpha = .94$). Prior involvement with the issue was measured by four items on a seven point Likert scale by Beatty and Talpade (1994) (e.g., “I generally have a strong interest in sun tanning”) ($\alpha = .88$). Respondents’ health and appearance focus was measured by means of two separate subscales (Lawrence et al., 2006), because individuals can be classified as either relatively more health focused, relatively more appearance focused, neither, or both. The health focus subscale contained eight items on a seven-point Likert scale (e.g., “I am worried about health risks and take preventive action”) ($\alpha = .79$). The appearance focus subscale contained nine items on a seven-point Likert scale (e.g., “My looks are important to me”) ($\alpha = .87$). Behavioral intentions to suntan were measured by means of three items on a seven-point semantic differential scale (Zhang and Buda, 1999) (e.g., “How likely is the chance you will suntan?” ranging from 1 (very unlikely, not probable) to 7 (very likely, very probable) ($\alpha = .97$).

4 Results

4.1 Manipulation checks

A manipulation check shows that the appearance message ($M = 4.70$, $SD = 2.07$) is considered more appearance (versus health) focused than the health message ($M = 2.28$, $SD = 1.59$), ($t(301) = 11.48$, $\eta^2 = .304$, $p < .001$). Also, the two-

sided message ($M = 5.65$, $SD = 1.54$) was perceived as more two-sided than the one-sided message ($M = 2.41$, $SD = 1.56$), ($t(299) = 18.15$, $\eta^2 = .524$, $p < .001$).

4.2 Hypotheses testing

Hypothesis 1 and 2 were tested by means of two independent samples t-tests. The results show that a two-sided message ($M = 4.55$, $SD = 1.14$) attracts more attention than a one-sided message ($M = 3.85$, $SD = 1.33$), ($t(298) = 4.89$, $\eta^2 = .074$, $p < .001$), which confirms hypothesis 1. Additionally, we found that a two-sided message ($M = 4.69$, $SD = 1.51$) generates a higher message content recall than a one-sided message ($M = 3.83$, $SD = 1.85$), ($t(302) = 4.43$, $\eta^2 = .061$, $p < .001$), supporting hypothesis 2.

Next, we tested in our sample the assumption that sun tanning is driven by appearance motivations rather than health motivations, by means of Pearson correlation analyses. A positive prior attitude toward sun tanning is positively correlated with individuals' appearance focus ($r(293) = .22$, $p < .001$), while it is negatively correlated with a health focus ($r(295) = -.22$, $p < .001$). High involvement with sun tanning is also positively correlated with individuals' appearance focus ($r(293) = .25$, $p < .001$), while it is uncorrelated with a health focus ($r(300) = .039$, $p = .507$). Hence, sun tanning is generally more associated with appearance than health motivations.

Hypothesis 3 was assessed through a one-way analysis of variance (ANOVA). The results show a significant interaction effect between message sidedness (one- versus two-sided) and argument focus (appearance versus health) on behavioral intentions to suntan ($F(1,290) = 4.266$, $\eta^2 = .015$, $p = .040$). Respondents indicate lower behavioral intentions to suntan when they were given an appearance focused two-sided message ($M = 2.88$, $SD = 2.11$) than a health focused two-sided message ($M = 3.71$, $SD = 2.08$), ($t(144) = 2.39$, $\eta^2 = .038$, $p = .018$), while for a one-sided message, no significant difference in behavioral intentions to suntan was found ($M_{\text{appearance}} = 3.78$, $SD_{\text{appearance}} = 1.99$ versus $M_{\text{health}} = 3.61$, $SD_{\text{health}} = 2.12$, $t(143) = .522$, $\eta^2 = .002$, $p = .603$) (see figure 1). Hypothesis 3 is supported.

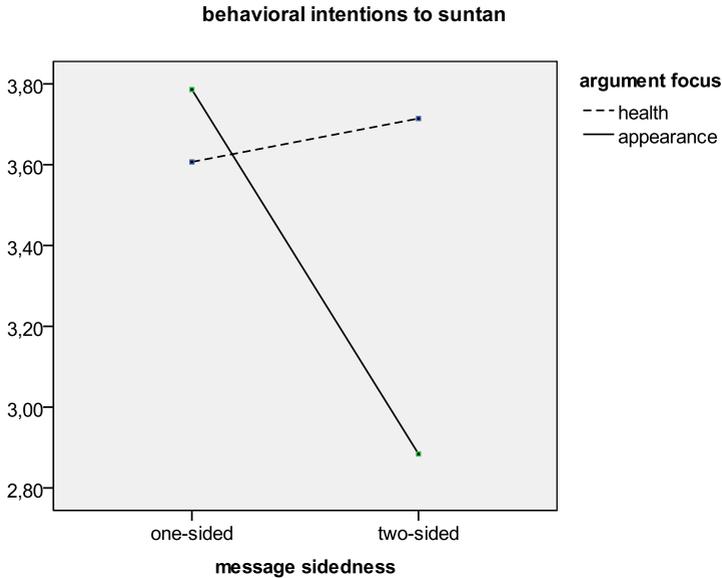


Figure 1: The interaction effect between message sidedness and argument focus on behavioral intentions to suntan.

5 Discussion and Conclusions

The present study investigated the effectiveness of health and appearance focus in one- and two-sided messages. The results show that two-sided messages attract more attention than one-sided messages. The content of two-sided messages is also better recalled than the content of one-sided messages. These results align with previous literature stating that two-sided messages are generally processed in a more thorough manner than one-sided messages (Crowley and Hoyer, 1994).

Furthermore, our results are in line with the previous studies that also used appearance-focused interventions besides the more conventional health focused messages. For instance, Jones and Leary (1994) found that a message emphasizing the negative consequences of UV exposure for future appearance was more effective in motivating intentions to engage in protective behaviors than was a message emphasizing the negative health consequences.

The added value of our study is the finding that argument relevance is especially important in two-sided rather than one-sided messages discouraging sun tanning. In a two-sided message, more emphasis is put on the arguments, becau-

se two-sided messages generally induce more thorough processing of the message content.

One of the implications of this study for health prevention practitioners is that two-sided messages should be implemented with caution: as the likelihood of more profound processing increases with two-sided messages, argument relevance becomes more important. Hence, when using two-sided message formats, practitioners should pay close attention to the relevance of the arguments they use for the issue at hand, even more so than when using one-sided messages.

6 Limitations and Further Research

One limitation of this study is the omission of a control group. Further research could include a control group receiving a neutral message (i.e., not specifically appearance or health related) about sunbathing. Another suggestion would be to design a message in which both an appearance and a health focus are mixed. For instance, the arguments in favor of sun tanning might be appearance focused, whereas the arguments against sun tanning might be health focused. Additionally, besides health or appearance focused motivations, other motivations for sun tanning can be tested, such as the pleasure, feeling of joy, or warmth of sun tanning itself (i.e., consummatory motive) as opposed to sun tanning for a specific further goal (i.e., instrumental motive).

Further research could also investigate the effectiveness of promoting alternative behaviors, such as using self-tan creams or lotions. According to the theory of alternative behavior (Jaccard, 1981), attitude changes are optimal when alternatives are given for the discouraged behavior. In the present study, no alternative behaviors were mentioned in the messages.

Lastly, it would be interesting to assess age differences in further studies. Motivations for sun tanning as well as reactions to sun tanning prevention messages could vary in different age groups.

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The Effectiveness of Green Advertisements: Combining Ad-based and Consumer-based Research

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1 Introduction

In the late 60s and early 70s, people started to worry about the deteriorating effects their consumption behavior may have on the environment. Accordingly, consumers were searching for alternative ways to decrease their ecological footprint (Montoro-Rios, Luque-Martinez, Fuentes-Moreno & Cañadas-Soriano, 2006), and they incited companies to take care of the environment in their organizational processes (Ottman, 1993). Since then, consumers have started searching for environmentally friendly products (Ahmad, Shah & Ahmad, 2010). Public concerns about the environment have only increased in recent years (Chang, 2011; Hanas, 2007), and companies have responded to this trend by adopting 'green strategies' (Ginsberg & Bloom, 2004). However, recent studies show that consumers are rather skeptical towards green claims in advertisements (Grillo, Tokarczyk & Hansen, 2008; Pfanner, 2008). As credibility is an important antecedent of ad effectiveness (McKenzie & Lutz, 1989), the current study investigates the impact of green advertisements on credibility by relating the green characteristics of advertisements to perceived credibility.

Many scholars constructed content analysis models to explore the green characteristics of advertisements (e.g. Iyer, Banerjee & Gulas, 1994, Iyer & Banerjee, 1993 & D'Souza & Taghian, 2005). A widely used model to assess the degree of greenness of advertisements is the MECCAS-model (Means-End Chain Conceptualization of Advertising Strategy, Grillo *et al.*, 2008; Wagner & Hansen, 2002). This model distinguishes five characteristics that categorize advertisements into five incremental levels of greenness. These characteristics indicate which environmental information is given about the product or company promoted in the advertisement. The first characteristic is the integration of an *important environmental claim* that is a prominent part of the ad and not hidden within the body copy. The second characteristic is the *executional framework* which refers to the fact that the ad looks 'green' by using for example green colors or green imagery. The third characteristic is the mentioning of the *product life cycle phase*, either raw material, production, packaging, transportation/distribution, consumption or disposal. The fourth characteristic is the men-

tioning of a *driving force* to preserve the environment, which can either be planet preservation, animal life or personal health. The final characteristic is the presence of a *leverage point* linking the driving force with tangible message elements: either rational, emotional, moral or zeitgeist.

The MECCAS model assumes that the more green characteristics an ad has, the more integrated and convincing the environmental stance becomes. This might have positive effects on the perceived credibility of advertisements. Scholars have, however, indicated that here lies a void in research to fill (Leonidou, Leonidou, Palihawadana & Hultman, 2011). Up till now, studies exploring green ads' characteristics and those exploring consumers' responses to green appeals have remained two separate streams of research. This paper tries to fill this void precisely by combining these two types of research on green advertising to explore the relation between ad characteristics and consumer responses. Moreover, Leonidou *et al.* (2011) also suggest exploring differences between environmentally conscious buyers and their less sensitive counterparts regarding how they react towards green communication. Therefore, the moderating role of environmental involvement was also taken into account in this study.

2 Theoretical background and hypotheses development

2.1 Green advertising

Companies are constantly trying to distinguish themselves from competitors and hope to attract environmentally involved consumers by promoting green products (Iyer & Banerjee, 1993; Chen, 2001; D'Souza & Taghian, 2005; Ottman, 1994), and integrating environmental claims in their advertising campaigns (Ahmad *et al.*, 2010; Shrum, McCarty & Lowrey, 1995). Claiming environmental soundness in advertising is a logical step in the light of Corporate Social Responsibility, or the extent to which a company takes multiple stakeholders (instead of only the company's interests) into account. A firm's reputation is, among others, determined by this social responsibility (Brammer & Pavelin, 2006), and the environment is one of its most important aspects (Turban & Greening, 1997). As such, well implemented green positioning strategies can provide more favorable brand perceptions (Connolly & Prothero, 2003).

Green advertising is defined as advertising that suggests either a positive relationship between a product and the environment, promotes a green lifestyle, or presents a positive corporate environmental image (Banerjee, Gulas & Iyer, 1995). It refers to all appeals that target the needs and desires of environmentally concerned stakeholders (Zinkhan & Carlson, 1995). The studies on green communication can be divided into two specific research streams. The first is ad-based and studies the anatomy of green advertisements, or the level of environ-

mental information that is conveyed in the ad (Chamorro, Rubio & Miranda, 2009; Kilbourne, 1995; Leonidou *et al.*, 2011; Manrai, Manrai, Lascu & Ryans, 1997). Although this research stream reveals primordial information on green advertising, this type of research has become less popular in the last decade (Chamorro *et al.*, 2009). The second, more popular, research stream is that of consumer-based studies in which consumers' responses to green appeals are the objects of study (Chamorro *et al.*, 2009; Leonidou *et al.*, 2011; Shrum *et al.*, 1995; e.g. Chan *et al.*, 2006; D'Souza & Taghian, 2005). However, ad-based and consumer-based studies should be combined to gain a better insight in the effectiveness of green advertisements (Leonidou *et al.*, 2011).

2.2 *Characteristics of green advertisements and ad effectiveness*

The green characteristics of an ad convey information about the product's and company's environmental soundness and this information may have an important effect on ad effectiveness (Ahmad *et al.*, 2010). However, only few studies have linked this environmental information to ad effectiveness. D'Souza & Taghian (2005), for instance, tried to uncover the impact of informational aspects of an advertisement on consumers' attitudes towards this advertisement. However, although credibility is an important indicator of ad effectiveness (McKenzie & Lutz, 1989), no study so far has investigated the impact of informational aspects of a green advertisement on the perceived credibility of the ad. Authors postulate conflicting views on the credibility of environmental appeals, with earlier research suggesting that green appeals are credible (Mathur & Mathur, 2000) and more recent studies suggesting that skepticism is growing and credibility is thus decreasing (Crane, 2000; Grillo *et al.*, 2008). Greenwashing practices (i.e., green advertising without real commitment to the environment, Grillo *et al.*, 2008) have erased the clear connection between the promoted product and its environmental benefits. This is a major problem since it is exactly the integration of various communication tools and messages that is shown to have a positive relationship with brand outcomes (cf. Integrated Marketing Communication (IMC), Reid, 2005). This lack of integration of information conveyed in the ad may explain consumer incredulity towards green ads. As a consequence, we hypothesize that the more different features conveying information in the ad are geared to one another and integrated, the more consumers will be convinced that the environmental stance is genuine. This leads to the following hypotheses:

H1: The level of greenness of advertisements has a positive impact on perceived credibility

H2: The five characteristics of green ads (MECCAS) positively influence perceived credibility

2.3 *Moderating impact of environmental involvement*

The effectiveness of green ads is further influenced by individual differences. In particular, concern about the environment is supposed to influence consumers' responses to green appeals in advertising (Chang, 2011; D'Souza & Taghian, 2005). Traditional product involvement studies show that highly involved consumers show higher purchase intention and more favorable brand attitudes (Schuhwerk & Leffkoff-Hagius, 1995). Moreover, involvement appears to have a positive impact on attitude towards the ad and ad credibility (D'Souza & Taghian, 2005). The Elaboration Likelihood Model advocated that information processing depends on the consumer's involvement along with the ability and motivation to process information. Highly involved consumers follow what is called the central route to persuasion and diligently elaborate on the information given in the ad. Less involved consumers, on the other hand, follow the peripheral route and resort to non-content cues to shape their response to the advertisement (Petty & Cacioppo, 1986). As a result, we expect that perceived credibility may be predicted by content characteristics for individuals who are high involved with environmental issues, while it may be predicted by peripheral (non-content) characteristics for individuals who are low in involvement with environmental issues, leading to the following hypotheses:

H3: Environmental involvement moderates the impact of level of greenness on perceived credibility

H4: Central (content) characteristics will constitute a better predictor for highly involved than for less involved consumers. The opposite holds for peripheral (non-content) characteristics.

3 **Method**

3.1 *Design and procedure*

We conducted an experimental study, using a within-subjects design, to investigate the perceived credibility of 162 green ads containing different levels of greenness. Each respondent had to rate a large, randomly assigned subset of 20 ads on perceived credibility.

3.2 *Stimuli*

We conducted a pretest to select a variety of ads containing various levels of greenness. To enhance validity, genuine ads instead of mock-ups were used (Beltramini & Evans, 1985; Soh, Reid & King, 2009). We conducted a content

analysis of all green ads that were published in a whole volume of three magazines (October 2008 – September 2009). Since the goal of this research was to study the response to green advertisements of the average man in the street, general public magazines with a wide circulation were selected. The selection of green advertisements was carried out in accordance to Iyer & Banerjee (1993), Banerjee *et al.* (1995) and Carlson, Grove & Kangun (1993), resulting in a sample of 162 unique ads. The degree of greenness of each individual ad was determined by the MECCAS-model (Grillo *et al.*, 2008; Wagner & Hansen, 2002). Accordingly, the advertisements are categorized into five incremental levels of greenness based on the specific combination of the aforementioned five characteristics; *important environmental claim*, *executional framework*, *product life cycle phase*, *driving force* and *leverage point*. Table 1 demonstrates which specific combination leads to which level of greenness of each ad. Objectivity of the coding was measured by recoding a randomly selected subset of ads ($N = 33$ or 20%) and by calculating the Cohen's Kappa interjudgement reliability of each variable separately (Hayes & Krippendorff, 2007; Kassarijian, 1977). Reliability was 0.79 for *leverage point* and ranged from 0.91 to 0.96 for the other MECCAS variables; one just below, but all others well beyond the 0.80 threshold recommended in literature (Banerjee *et al.*, 1995; Perreault & Leigh, 1989). Among the unique advertisements published in the 2008-2009 time span, a majority was *brown* (49%), while 28% was *green*. *Light green* (16%) and *green-brown* (5%) take positions three and four, and an absolute minimum (2%) was *extra green* (see figure 1).

Table 1: MECCAS measurement model

	<i>Important environmental claim</i>	<i>Executional framework (looks 'green')</i>	<i>Product life cycle</i>	<i>Driving force & Leverage point</i>
Extra green	✓	✓	✓	✓
Green	✓	✓	✓	
Green	✓	✓		✓
Light green	✓	✓		
Green-brown	✓		✓	
Green-brown	✓			✓
Green-brown	✓			
Brown				

3.3 Participants

52 Flemish respondents, selected by means of a convenience sample, participated in this study. The average age of the sample was 48 years ($SD = 19.95$). The majority was female (58%), married or living together (77%), higher educated (54%) and in full-time employment (31%).

3.4 Measures

Credibility was measured by one item (*'This advertisement is credible'*) to be answered on an 11-point Likert type scale ranging from 0 (not at all) to 10 (completely). Furthermore, to assess respondents' environmental involvement, they were given a list of 34 green behaviors such as recycling and purchasing local produce in which they had to indicate the specific behaviors they currently display (C-Change, 2009). The amount of specific actions respondents undertake was then used to divide them into two groups of involvement based on a median split: high and low involved individuals.

4 Results

Overall, results reveal that the credibility of advertisements is rather low ($M = 4.43$, $SD = 2.74$). A two-way ANOVA with level of greenness and environmental involvement as independents and perceived credibility as dependent variable reveals a main effect of level of greenness on perceived credibility ($F(4, 1031) = 19.48$, $p < .001$). In particular, results show that green ads are perceived as most credible ($M = 5.02$), followed by extra green ads ($M = 4.73$), green-brown ads ($M = 4.64$), light green ads ($M = 4.47$) and brown ads ($M = 4.00$) (see figure 1). Moreover, a nonparametric correlation showed that the ad's greenness level is positively correlated with perceived credibility, $r = .157$, $p < .001$. These results confirm our first hypothesis. Furthermore, there appears to be a significant main effect of level of environmental involvement on perceived credibility ($F(1, 1031) = 6.93$, $p < .001$). In particular, respondents with low environmental involvement ($M = 5.23$) perceived green ads as more credible than those with high environmental involvement. ($M = 3.92$). Although the interaction effect between environmental involvement and level of greenness is not significant ($F(4, 1031) = 1.29$, $p = .272$), t-tests reveal that high environmentally involved respondents perceive ads less credible than low environmentally involved respondents for brown ($t(504) = 2.64$, $p = .008$), green ($t(295) = 3.06$, $p = .002$) and extra green ads ($t(20) = 2.40$, $p = .026$). High and low environmentally involved respondents do not differ from each other for the perceived credibility when ads are green-brown ($t(50) = 1.93$, $p = .060$) and light green ($t(162) = 1.51$, $p = .134$). These results confirm H3.

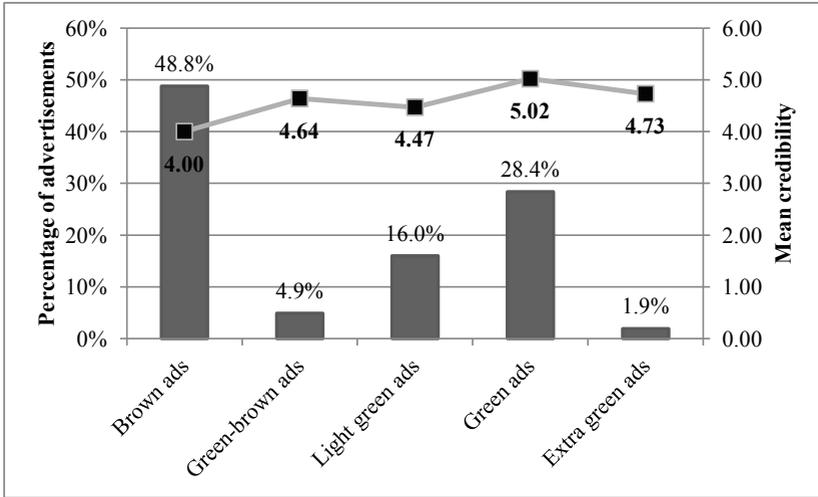


Figure 1: Percentage of advertisements & mean credibility per level of greenness

To test H2, multiple regression analysis was used. The advertisement characteristics were entered as independents to assess how they are related to ad credibility. Note that dummy variants of *life cycle phase* and *driving force* were entered. The predictors explained a significant proportion of variance in credibility ($R^2 = .104$, $F(7,1033) = 18.18$, $p < .001$). Hence, H2 was confirmed. Mentioning *raw materials* ($\beta = -.083$, $p = .008$), *production* ($\beta = -.113$, $p = .001$) and *consumption* ($\beta = -.125$, $p < .001$) have a negative effect on credibility. Mentioning *disposal issues* ($\beta = .179$, $p < .001$) and *planet preservation* ($\beta = .157$, $p < .001$) have the strongest positive influence, followed by the presence of a prominent environmental *claim* ($\beta = .084$, $p = .007$) and mentioning *animal life* as a driver to preserve the environment ($\beta = .063$, $p = .043$).

Subsequently, it was assumed that the variable *environmental claim* constitutes the central (content) cue since it conveys the core environmental benefit of the product. *Executional framework*, on the other hand, constitutes the peripheral (non-content) cue since it also conveys green information that is, however, not the core environmental stance. However, for neither high ($\beta = .022$, $p = .674$) nor low involvement ($\beta = -.029$, $p = .603$) respondents, *executional framework* was a significant predictor of perceived credibility. In contrary to our expectations, *claim* was only a significant predictor for low involvement respondents ($\beta = .102$, $p = .051$), but not for highly involved respondents ($\beta = .074$, $p = .182$). Hence, H4, that involved consumers base their judgment on the green claim, while their less involved counterparts are satisfied if the ad merely looks green, could not be confirmed. Apparently, the fact that the ad looks green does not

make a difference, while the environmental claim does, but only for non-involved consumers.

5 Discussion and conclusions

This study provides additional insights in the field of green advertising by combining the two major research movements in this field, namely ad-based and consumer-based studies. Such research is primordial since a combination of these two streams is needed to fully understand the effectiveness of green advertisements. D'Souza and Taghian (2005) showed that characteristics of green advertising influence consumers' attitudes toward the advertisement. The current study complements this study by focusing on ad credibility and by employing the MECCAS model to assess an ad's characteristics and its corresponding level of greenness.

The results of this study provide further evidence for the low effectiveness of green advertisements in terms of credibility of green advertising, especially for highly involved consumers. This is in line with the study of D'Souza and Taghian (2005). As a consequence, it might be better to target high and low environmentally involved consumers differently. However, this study also shows that the higher the greenness level of advertisements, the more they are perceived as credible. When using green claims in advertisements, advertisers should take this into account and accordingly attune the green claim to the product. Finally, results show that green characteristics of advertisements explain a significant proportion of variance in credibility, showing that communication effectiveness is indeed related to ad characteristics.

6 Limitations and further research

Despite the above mentioned contributions, the current study has some limitations. First, since all respondents had to judge the credibility of a subset of 20 advertisements, this could cause fatigue and impact their judgments. Therefore, future studies should experimentally investigate the effectiveness of green advertisements containing various levels of greenness by showing them to different groups of respondents so that each respondent has to judge only one advertisement. Second, it would be interesting to investigate the impact of level of greenness on other measures of ad effectiveness such as attitude towards the ad. Moreover, future studies could enhance validity by using fictitious ads instead of real ones in order to eliminate prior experiences consumers might have with the product and with the brand. Finally, validity could also be enhanced by employing a scale such as the three-measure approach (convincing/unconvincing, believable/unbelievable and biased/unbiased) proposed by McKenzie and Lutz (1989) to measure ad credibility.

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”I” Lose, “Others” Gain - Message Framing and Beneficial Appeals in Ads Promoting Green Consumption

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1 Introduction: Green consumption

Current consumption lifestyles put the environment in danger (United Nations 1992). Enhancing green consumption, i.e. a consumption lifestyle that reduces damage to our natural surroundings, is therefore of great importance. The ecological impact of consumption has also become an important factor in consumer choice. More and more consumers are willing to change their consumption style, claim to pay attention to ecological claims and labels and are willing to pay a higher price for ecological friendly products (GfK North America 2008). Successful advertisement of green products is therefore crucial for marketers, consumers, and society as a whole.

Despite the pressing importance of altering our consumption behavior, prior research has come up with mixed results on what message type best encourages this consumer behavior. The current research makes important contributions, both theoretically and substantively, to the literature. In investigating the effectiveness of different appeal types (self- versus other-benefit appeal) when combined with a gain-framed message (versus loss-framed message), this research aims at answering the question under which circumstances self-benefit appeals are more effective than other-benefit appeals by examining the moderating role gain- versus loss-framed messages. This is an important question because marketers often use both appeal types in advertisement for green products. A small-scale pilot study was conducted with a random sample of 25 online ads for green brands (Interbrand 2011). The results of the pilot study showed that both gain- and loss-framed messages were commonly used (12 used gain-framed messages, 9 used loss-framed messages and 4 used a combination of both). The question of how to effectively pair beneficial appeal and message frame is hence of practical importance.

The current research contributes to several research streams. First of all, it helps to better understand the effectiveness of green advertisement. Specifically, it extends prior work on beneficial appeals in advertisement for green products. Some studies have considered self- versus other-benefit appeals and demographic moderators (e.g. gender) (Brunel and Nelson 2000; Nelson et al. 2006). This study demonstrates that in addition variables that can be manipulated can influence the impact of beneficial appeals on consumer behavior. The results also

further work on marketing appeals for charity donation (White and Peloza 2009), which has been shown to be significantly influenced by benefit appeal type.

The study also extends prior research on message framing (Tversky and Kahneman 1981). Message framing is a commonly used framework to predict consumer behavior in general (Block and Keller 1995; Maheswaran and Meyers-Levy 1990; Shiv et al. 1997, 2004) and ecological behavior in particular (White et al. 2011). So far research has come up with mixed results on whether loss frames (Tversky and Kahneman 1981; Meyerowitz and Chaiken 1987) or gain frames (Maheswaran and Meyers-Levy 1990) are more effective in altering consumer behavior. The current study aims at filling this research gap with regard to the advertisement and promotion of green products.

2 Beneficial Appeals

Generally, when promoting a product marketers focus on the benefit that the consumer him-/herself experiences, when buying and/or consuming the product. However, when it comes to green products, the benefit of consuming a green product can be more ambiguous: on the one hand there might be a benefit for the consumer him-/herself (e.g. the product is healthier or lasts longer) and on the other hand there might be a more general benefit for society as a whole (e.g. ecological resources are saved or pollution is reduced). Therefore there are two different ways of emphasizing the benefit of an ecological friendly product: Firstly, one can emphasize the benefit for the environment or society as a whole. Secondly, one can emphasize the benefit for the consumer him-/herself. The first one can be seen as a rather altruistic appeal (highlighting the benefit for others) and the second one can be seen as a rather egoistic appeal (i.e. highlighting the benefit for the consumer).

Following Fisher et al. (2008) appeals that highlight that the main beneficiary is the environment are referred to as 'other-benefit' appeals and appeals that highlight that the main beneficiary is the consumer are referred to as 'self-benefit' appeals. Although it might be possible to use a combination of both and simultaneously highlight benefits for the consumer as well as for the environment, following prior research, in this study the two are separated to examine more closely which type of appeal is more effective.

Prior research has shown that whether self- or other-benefit appeals are more effective depends on the decision situation. For example, when people were asked to donate to a charity, other-benefit appeals were more effective when the decision was made in public. When the same decision was made in private, self-benefit appeals were more effective and generated higher donations (White and Peloza 2009). Other studies have found that promotion-focused messages are

more effective when an independent self-view is activated. That is, a situation where the focus is on the individuals' unique characteristics that distinguish him or her from others. In contrast, prevention-focused messages are more effective when an interdependent self-view is activated. In this case the focus is on the individual as part of a larger group (Aaker and Lee 2001). However, no study has yet looked at the impact of appeal type used in combination with different types of message framing. The following paragraph will elaborate in more detail on the aspect of different types of message framing.

3 Message Framing

Message framing is a commonly used framework to predict consumer behavior. It involves the comparison of gain-framed messages (i.e. messages highlighting the positive consequences of engaging in a particular behavior) and loss-framed messages (i.e. messages highlighting the negative consequences of not engaging in a particular behavior) (Block and Keller 1995; Maheswaran and Meyers-Levy 1990; Shiv et al. 1997, 2004). With regard to message effectiveness, prior research has come up with mixed results on whether loss frames (Block and Keller 1995; Kalichman and Coley 1995; Maheswaran and Meyers-Levy 1990; Meyerowitz and Chaiken 1987; Tversky and Kahneman 1981) or gain frames (Maheswaran and Meyers-Levy 1990; Rothman et al. 1993) are more favorable. Prior studies have suggested that loss frames are more persuasive than gain frames in situations of high involvement (Maheswaran and Meyers-Levy 1990) or when concrete mind-sets are activated (White et al. 2011). Other studies have found evidence that moderating variables such as risky versus risk-averse behavior and the regulatory focus of the message (promotion versus prevention focus) may play a role in message framing effects (Lee and Aaker 2004).

However, many of these studies have focused on health related issues or other behaviors directly relevant for the consumer's own personal well-being. As explained above, when it comes to green products, the benefit of consuming a green product can be more ambiguous: on the one hand there might be a benefit for the consumer him-/herself and on the other hand there might be a more general benefit for society as a whole. Recent frameworks of message framing thus do not adequately translate to decisions for ecologically friendly products. This study intends to provide insight into the question of whether a self- or other-benefit appeal is more effective in advertisement for ecologically friendly products, by examining the moderating role of whether a gain- or a loss-framed message is applied.

Following the results from research on product involvement and message framing, messages using a self-benefit appeal are expected to lead to a higher involvement of the consumer. In contrast, messages using an other-benefit ap-

peal are expected to lead to a lower involvement of the consumer. Consequently, an advertisement with a self-benefit appeal is expected to be more efficacious when paired with a loss-framed message, whereas an advertisement with an other-benefit appeal is expected to be more efficacious when paired with a gain-framed message. The following two hypotheses are derived:

H₁: Loss-framed messages are more effective when presented with a self-benefit appeal.

H₂: Gain-framed messages are more effective when presented with an other-benefit appeal.

4 Method

In order to test the prediction, an experimental study with a 2 (self-benefit versus other-benefit appeal) x 2 (gain versus loss frame) design was conducted. 82 students participated in the study (59.8 % female, age mean = 23.3 years) and were randomly assigned to one of the four conditions. As a study object washing detergent was used and a fictitious brand (GreenClean™) was created to reduce potential variance created by the use of a real brand. A pretest confirmed that none of the study participants claimed to know the brand shown in the study material. Washing detergent is a commonly used product and study participants were expected to be familiar with the product category.

Study participants were shown a fictitious advertisement, consisting of a picture and an advertising appeal, for GreenClean washing detergent along with a questionnaire. They were told to review the advertisement as if they were viewing it in a magazine and then respond to a series of questions. Each advertisement appeal reads as follows (see figure 1): *“With the new GreenClean you can get the same sized load clean using only half the detergent, water, and energy!”*

The two independent variables, message framing and beneficial appeal, were manipulated by altering the message that followed. Half of the participants were in the gain-framed message condition and, following White et al. (2011), read: *“Think about what will be gained if you use this ecological friendly detergent”*. The other half of the participants were in the loss-framed message condition and read: *“Think about what will be lost if you don’t use this ecological friendly detergent”*.

Beneficial appeal was manipulated following White and Peloza (2009). The next line of the message read either *“Only half as much detergent and water is needed per load, so you can save money and also reduce your energy bill”* (self-benefit condition) or *“Only half as much detergent is needed per load, so ecological resources like water and energy are saved for everyone”* (other-

benefit condition). After reading the advertisement participants rated their motivation to process the message, perceived persuasion effect of the message and their intention to buy the product on 7-point scales each.



Figure 1: Study object

As a check for the message framing and beneficial appeal manipulations additional questions were included. Participants rated two questions asking to what extend the advertisement focused on what would be gained if people used this product or lost, if people did not use the product on 7-point scales each (White et al. 2011). Manipulations for the beneficial appeal were tested following White and Pelazo (2009). In particular, participants evaluated the other- and self-benefit appeals (“To what degree is this an altruistic appeal [i.e. focused on helping others]?”), “To what degree is this appeal associated with looking out for the interest of others?”, “To what degree is this an egoistic appeal [i.e. focused on helping oneself]?”, “To what degree is this appeal associated with looking out for one’s own interests?”) on 7-point scales. An index of perceived self-/other-benefit was created by reverse scoring the first two items and averaging the items into one scale. The questionnaire ended with demographic measures. After filling out the questionnaires participants were debriefed and thanked.

5 Results

5.1 Manipulation Checks

Manipulations for the type of beneficial appeal proved to be successful. Participants evaluated the self-benefit appeals as significantly more focused on self-benefits than the other-benefit appeal ($M_s = 3.44$ and 4.32 ; $t(80) = -4.742$, $p < 0.001$). The manipulation of message frame also proved to be successful. Participants in the gain-framed message manipulation evaluated the gain frame manipulation check item as significantly higher than participants in the loss-framed message manipulation ($M_s = 2.29$ and 3.27 ; $t(80) = 3.587$, $p < 0.001$), whereas the opposite was the case for the loss frame manipulation check item ($M_s = 3.25$ and 4.32 ; $t(80) = -3.103$, $p < 0.05$).

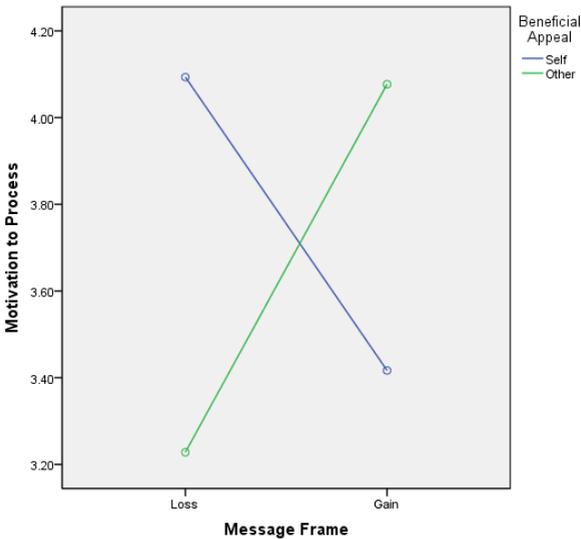


Figure 2: Motivation to process the message

The impact of beneficial appeal and message framing on the dependent variables was explored, measuring both attitudes and behavioral intention. Results show a consistent strong interaction effect between beneficial appeal and message framing. When confronted with a gain frame, participants reported more **motivation to process the message** when it was paired with an other-benefit appeal ($M = 4.58$) than with a self-benefit appeal ($M = 3.92$). When confronted with a loss frame, participants reported more motivation to process the message

when it was paired with a self-benefit appeal ($M = 4.77$) than with an other-benefit appeal ($M = 4.15$). The 2 (message frame: gain versus loss) \times 2 (beneficial appeal: self versus other) ANOVA on motivation to process the message showed the expected interaction effect ($F(1,78) = 4.53, p < 0.05$).

The **persuasion effect of the message** was also influenced as hypothesized. A 2 (message frame: gain versus loss) \times 2 (beneficial appeal: self versus other) ANOVA on persuasion effect of the message showed the expected interaction effect ($F(1,78) = 6.68, p < 0.05$). As anticipated, when confronted with a gain frame, participants reported more perceived effectiveness of the message when it was paired with an other-benefit appeal ($M = 4.75$) than with a self-benefit appeal ($M = 4.02$). When confronted with a loss frame, participants reported more perceived effectiveness of the message when it was paired with a self-benefit appeal ($M = 4.82$) than with an other-benefit appeal ($M = 3.86$).

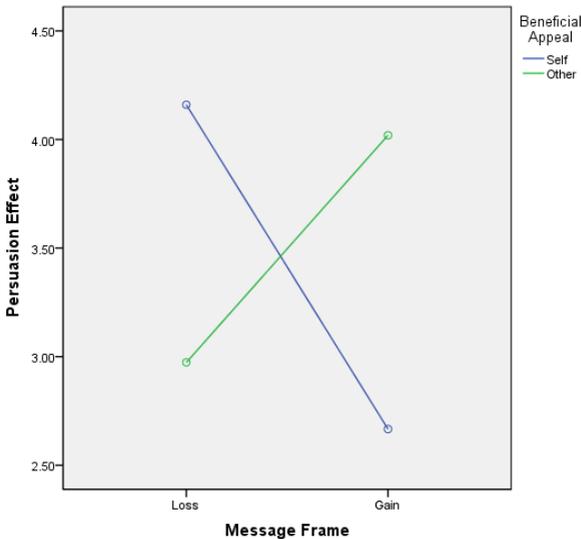


Figure 3: Persuasion effect of the message

Buying intention also proved to be significantly influenced by the interaction of message framing and beneficial appeal. The 2 (message frame: gain versus loss) \times 2 (beneficial appeal: self versus other) ANOVA revealed the expected interaction effect ($F(1,78) = 8.70, p < 0.01$). As anticipated, when confronted with a gain frame, participants reported more intention to buy the product when it was paired with an other-benefit appeal ($M = 5.08$) than with a self-benefit appeal ($M = 3.38$). When confronted with a loss frame, participants

reported more intention to buy the product when it was paired with a self-benefit appeal ($M = 4.84$) than with an other-benefit appeal ($M = 4.16$).

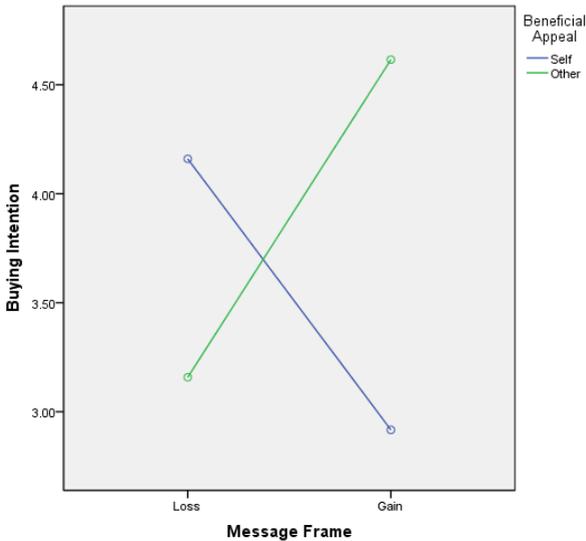


Figure 4: Buying intention

6 Conclusion and Discussion

Should an advertisement for green products focus on the benefit for the consumer or the benefit for the environment? The results of this study show that the answer to this question depends on other contextual features of the advertisement: whether the benefits for the consumer or the benefits for the environment should be the focus of the advertisement depends on the framing of the message. As the research results demonstrate, in order to be most effective, messages that focus on self-benefit appeals (such as saving money) are more efficacious when paired with loss-framed messages. For example, participants in this condition reported a higher motivation to process the message. The interaction of benefit appeal and message frame also led to an increased perceived effectiveness of the advertisement and finally to a higher intention to buy the advertised product. In contrast, messages that focus on other-benefit appeals (such as saving ecological resources or reducing pollution), are more efficacious when paired with a loss-framed message. The results of the study have practical implications for marketers of green products by providing important opportunities to increase the efficacy of green marketing campaigns. The study results identify practical solutions

to influencing consumer choice for environmental friendly products. Marketers wanting to promote green consumption would do well in ensuring a match with benefit appeal and message frame in order to maximise the impact of their advertisement effectiveness.

The findings of this research are a contribution to the understanding of advertising effectiveness for green products. The study provides support for the notion that the efficacy of self-benefit compared to other-benefit appeals is moderated by contextual message characteristics such as the framing of the message. This is an important, substantive finding which extends the current literature on benefit appeal, message framing and advertising effectiveness. The findings stimulate further research as they raise additional questions regarding the underlying mechanism of the findings and also other possible moderators. A possible explanation for the observed interaction could be that the different types of benefit appeal (self- versus other-benefit appeal) lead to different levels of message involvement. This possible effect was proposed before but has not been explored in the current study. As prior work has suggested, loss-framed messages are more persuasive than gain-framed messages under conditions of high issue involvement (Maheswaran and Meyers-Levy 1990). Hence, the moderating role of message framing could be explained through the influence of the involvement with the message. When issue involvement is low, people tend to process a message with less detail and base their attitude and intentions on simple inferences. If a message is framed as a gain, it appears to provide such a peripheral cue and thus leads to more favourable thoughts and intentions. In contrast, when involvement is high the message is processed in more detail and people tend to assign greater weight to negative pieces of information. Thus they find the loss-framed-messages more persuasive (Maheswaran and Meyers-Levy 1990). These and other possible explanations of the findings could be investigated in future research efforts.

Finally, limitations associated with the current research study that are worth noting, particularly because they also provide additional research opportunities, are the selection of the product category and the sample used in the current study. The product category could have had an impact on the results of the study. Washing detergent may be seen as a rather low involvement product. As mentioned before the involvement of the consumer impacts the influence of the message framing on the persuasion effects of the message. Therefore the question arises whether the findings are generalizable across different product categories. Future empirical research is needed to address these questions and extend the findings of the study regarding benefit appeal and message frame.

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Developing Different Types of Anticipated Experience Positioning for Electric Cars

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1 Introduction and objectives of the study

One of the options to counter the trend of deploying the natural sources and polluting the air is the partial or complete shift to electric vehicles. Car manufacturers that have started to develop and launch electric cars face the challenge of positioning a new product type that is responsive to consumer needs. In this context, product design and advertising are boundary spanning functions between companies and consumers. Product categories and brands are often categorized as either functional (e.g., lawnmowers) or symbolic (e.g., cars) (Midgley, 1983; de Ruyter and Wetzels, 2000; Park and Young, 1986). A functional product possesses mainly product-related or concrete, functional associations (de Ruyter and Wetzels, 2000; Park et al., 1986) and is bought primarily to satisfy utilitarian needs since they emphasize physical product features, performance, and benefits (Bhat and Reddy, 2001). Products or brands with a symbolic positioning serve? internally generated needs for self-enhancement, role position, group membership, or ego-identification (Park et al., 1986) and usually entail non-product-related or abstract, image-based associations (Bhat and Reddy, 2001; de Ruyter and Wetzels, 2000; Dijk and Yarime, 2010). Symbolic motivations are more important determinants of car use than instrumental motivations. This enables car manufacturers to differentiate their products beyond concrete functional needs. New technologies can only appeal to large parts of the market if they can also tap into such needs, i.e. provide sufficient variety (Van Bree et al., 2010). Brand experience is one of the important cornerstones of symbolic brand identity. Brakus et al. (2009) conceptualize brand experience as subjective consumer responses that are evoked by specific brand-related experiential attributes (sensory, affective, behavioural, and intellectual).

The aim of the present study is to explore how different types of anticipated experiences can be evoked in designing and advertising electric cars. Can an electric car be designed and positioned as predominantly sensory, behavioural or intellectual, and which product attributes and resulting advertising claims are suitable to trigger these anticipated experiences? Our analysis thus provides the

first test of the suitability of the Brakus et al. (2009) model of brand experience dimensionality for the development of anticipated experience positionings of electric cars.

2 Conceptual framework

Earlier research has revealed that the product proposition 'sustainability' and 'ecological responsibility' is not enough to convince a large target group to be interested in an electric car. Lane and Potter (2007) conclude that, although consumers mention sustainability issues as a major consumer concern, consumer concern for environmental impact does not often translate into behavioural change. Car choice and driving decisions are not simply about rational economic choices, but are as much about aesthetic, emotional, and sensory responses. One of the dimensions on the basis of which cars can be made attractive for consumers is anticipated experience. Brakus et al. (2008) showed that brand experience affects consumer satisfaction and loyalty. Positive brand experience not only affects past satisfaction judgments but also future directed use intentions (Mittal and Kamakura, 2001; Oliver, 1997, Reicheld, 1996). Since actual experience shapes responses and intentions towards existing (car) brands, it is reasonable to assume that anticipated experience can also be used to create expectations about new product types like the electric car, by designing and advertising cars that could evoke specific types of anticipated experiences.

Brakus et al. (2009) conceptualize brand experience as subjective consumer responses that are evoked by specific brand-related experiential attributes. They developed a 12 item scale that claims to measure the various dimensions of experiences and that consists of sensory, affective, behavioural and intellectual experiences, which are differentially evoked by various brands. Each dimension is represented by three items. The scale has adequate psychometric properties. However, part of their results also suggest that there is insufficient discriminant validity between the 'sensory' and the 'affective' factor. Therefore, in order to keep data collection within doable limits, in the present study we will start from a framework with three dimensions: sensory, behavioural and intellectual. This framework is consistent with Norman's (2004) approach that has been specifically developed in the design context, and in which three emotional processing levels are discerned: visceral, behavioral and reflective. The first level represents the visceral emotions product appearance triggers, the second one the behavioral aspects related to the pleasure and effectiveness of use, and the third one reflective dimensions related to self-image, personal satisfaction and memories. Visceral and sensory, and intellectual and reflective, are conceptually very close, while the behavioural dimension is the same. Therefore, the Brakus framework is suitable to develop differentiated advertising propositions based on similar

design approaches. We will explore how different types of product propositions in terms of the anticipated experiences of the Brakus et al. (2009) model can be developed by means of designing and advertising concrete attributes of electric cars. The Quality function deployment model (Clausing, 1994) and the means – end model (Zeithaml, 1988) argue that consumer attributes can be grouped into higher order abstract attributes and lower level concrete attributes. The principal aim of this study is to develop concrete electric car concepts and descriptions that evoke different types of more abstract anticipated experiences.

3 Method

Anticipated emotional experiences are relatively abstract car attributes. This study explores the actionability of these abstract product attributes with the focus on the development of an electric car. Traditional models such as the Quality function deployment model (Clausing 1994) and the means – end model of quality (Zeithaml 1988) argue that consumer attributes can be grouped into a hierarchy of higher order abstract attributes and lower level concrete attributes. Abstract attributes, such as the evoked emotions and experiences, are not easily related to concrete attributes. One of the challenges is to translate abstract attributes into concrete and specific attributes by means of design elements. One of the aims of this study is thus to design specific electric car concepts that evoke different types of experiences. This will be done in two stages. The first stage is exploratory and qualitative and aims at developing potential concrete electric car characteristics that can evoke different more abstract types of experiences. Based on this list of product features, three conjoint experiments are set up to formally develop and test anticipated experience propositions.

Essentially, this study is a test of narrative concepts for electric car models. Concept testing is a marketing research based approach to determine the degree of potential buyers' interest in and responses to a new product idea to refine or improve the idea. The primary goal of a concept test is to measure consumer reactions to a product idea. Concept testing is a valuable consumer research technique in the early stages of the product development process (Ortt et al., 2007; van den Hende et al., 2007), such as the electric car. In practice, a concept test is a procedure in which respondents are invited to evaluate concepts (a presentation of the new product) based on a number of criteria (Ortt et al., 2007). In order to be able to perform a valid concept test, a number of criteria have to be met (Ortt et al., 2007). Using situations and behaviours relating to the new product should not be significantly different from existing products. This is the case for electric cars. Although the technology is novel, the using situations are not fundamentally different from those of conventional cars. Second, consumers should be able to adequately express their responses and preferences, based

on existing needs and preferences related to current behavior. This condition is also met in the case of electric cars. Third, consumers should be able to understand the product's future impact on daily life. Since the individuals studied are all experienced car drivers, this condition is met as well. Further, the new products should have an easy to understand set of characteristics that are similar to existing products, and understanding and evaluating them should not require a long term learning process. These conditions also apply to the electric car.

The concept tests in the present study uses narratives. Applications allow consumers to imagine the effect of a new product. By using concept narratives, explaining scenarios of use of the innovation, this imagination process is enhanced. Often, consumers cannot understand technological innovations unless it is explained to them which concrete benefits and positive experiences are related to the new technology. Narratives allow customers to really get transported into the new experiential world of the innovation (van den Hende, 2007). Therefore, we apply this approach in the present study. The electric car concepts tested are described using descriptions of concrete attributes of electric cars and their real-life experiential impact on the individual using the car.

Conjoint analysis has been used mainly to test the preference for different product types. However, most of these tests, also in the electric (hybrid) vehicle context, are based on rational product characteristics, such as vehicle price, engine performance, battery cost, recharging facilities, battery weight, range, recharge time, etc. (Orbach and Fruchter, 2011; Eggers and Eggers, 2011). Moreover, in case of new products, consumers may find it easier to express other types of responses to concepts than purchase intention (Klink and Smith, 2001). In the present study, conjoint analysis is used to measure anticipated experience responses following exposure to experientially positioned electric car models.

3.1 *Exploratory qualitative analysis*

Brainstorming sessions were organized in six groups of between six and ten participants (all master students) to identify electric car features that would be capable of evoking three different types of anticipated experiences, i.e. sensory, behavioural and intellectual. This phase resulted in between 100 and 195 features per group. Next, these items were assigned to four categories on the basis of two dimensions: whether the items were implementable in the near future and whether the items were original or not. Only those ideas that were deemed to be both original and workable in the near future were considered. A number of the most often elicited characteristics were chosen that could be used to design and position an electric car as sensory, behavioural or intellectual. These characteristics served as input for the conjoint analyses.

3.2 *Conjoint analyses*

The purpose of the conjoint analyses was to identify a relatively limited number of combinations of electric car characteristics that would evoke a relatively exclusive sensory, behavioural or intellectual anticipated experience. Three conjoint designs were set up, one for each experience type. In each of these designs, four two-level attributes were defined. They are described in Appendix 1. For each analysis, an orthogonal conjoint design was generated in which eight car types were defined as combinations of the two levels of each of the four attributes. For each of the conjoint measurements, a sample of 100 individuals, representative of the Flemish (Belgium) population in terms of gender, age and level of education was selected by a professional marketing research agency. They received an online questionnaire. First they were asked to read a general description of a person who was going to buy an electric car. They were then exposed to the eight car type descriptions. These eight descriptions were randomized across respondents to avoid order effects. Respondents were asked to indicate their anticipated experiences. Conjoint analysis is relatively difficult for consumers. Using one single item to measure a construct is suboptimal. However, to keep the already demanding conjoint exercise into reasonable and realistic limits and in order not to put too much strain on the respondents, we selected the most general of the three Brakus items to represent each of the three experience types. Consequently, in each of the three conjoint analyses, we asked respondents to score each car type on a 5-point Likert scale (completely disagree – completely agree) on the following items: ‘This car makes a strong impression on my senses’ (sensory); ‘This car incites me to action’ (behavioural); ‘This car makes me think and incites me to solving problems’ (intellectual). Finally, they were asked for their gender, age and education.

4 **Analyses and Results**

The average part-worth utilities across all individuals of each level of each attribute resulting from each conjoint analysis are given in appendix 1. Based on these part-worth utilities, the scores on each of the three dependent variables (items) was calculated for each of the 16 car types in each conjoint analysis, resulting in 48 different car type descriptions. The principal objective of the conjoint exercise was to identify three specific cars that receive a high rating on one type of experience and low ones the other two. To this end, the following procedure was followed. Per conjoint analysis, based on the total utility score for each of the 16 possible car types, the differences between the sensory, behavioural and intellectual ratings of individual cars were explored. The three cars (one from the sensorial, one from the behavioural, and one from the intellectual car

descriptions) for which these differences were highest and in the desired direction were then further examined based on separate conjoint analyses on individual subject ratings. These three cars are described in appendix 2. The results are given in Table 1.

In the *first analysis*, for each car separately, the ratings on the sensory, behavioural and intellectual item were compared by means of pairwise t-tests (Table 1, last three columns). The analysis for the sensory car type was based on 46 individuals from the sensory conjoint analysis who rated all three items. The analysis shows that this car is rated significantly higher on the sensory item than on both the behavioural and intellectual items, while the latter two are not significantly different. This car type is thus capable of evoking a higher anticipated sensory experience than a behavioural or intellectual anticipated experience. The same analysis was done on the ratings of 34 individual subjects for the behavioural car. This car does not evoke significantly different anticipated sensory, behavioural and intellectual experiences with these individuals. Finally, the selected intellectual car was analyzed based on 29 individuals who had rated this car on all three items. This intellectual car is rated significantly higher on the intellectual item than on both the sensory and the behavioural items, while the latter two are not significantly different. This car is thus capable of evoking a higher anticipated intellectual experience than a sensory or a behavioural anticipated experience.

To corroborate these findings, the data were analyzed from a different angle in *analysis 2*. Ideally, the average rating on the sensory item for the sensory car should be significantly higher than the average rating on the sensory item for the other two car types, and, *mutatis mutandis*, the same for the ratings on the behavioural and the intellectual items. Therefore, the individual ratings for the three cars on the three anticipated experience items were combined into one file of 109 subjects, and analyzed by means of three ANOVAs with Bonferroni post-hoc tests, in which the difference between the three cars on each of the three items was tested. The results are presented in the last three rows of Table 1. The sensory item is rated marginally significantly differ overall between the three cars. Post-hoc tests show that the sensory car is significantly more sensorial than the behavioural one, but not significantly more sensorial than the intellectual one, although the latter difference is in the right direction. The behavioural item does not significantly differ overall between the three cars, although the rating of the behavioural type is highest, as expected. None of the post-hoc tests are significant. The rating on the intellectual item does not significantly differ overall between the three cars. However, post-hoc tests show that the sensory car type is marginally significantly less intellectual than the intellectual car type, and also the behavioural car type is significantly less intellectual than the intellectual car type.

Table 1a. Analysis on item scores based on individual-subject conjoint analyses

Item Type of car	sensory	behavioural	intellectual
Mean ratings for sensory car type	3.188	2.764	2.832
Mean ratings for behavioural car type	2.684	2.813	2.776
Mean ratings for intellectual car type	3.004	2.935	3.220
Comparison across three car types: ANOVA and Bonferroni post-hoc tests	F(2,106)=2.790 p=.066	F(2,106)=.288 p=.750	F(2,106)=2.345 p=.101
	Sensorial car-behavioural car: p=.061	Sensorial car-behavioural car: p>.10	Sensorial car-behavioural car: p>.10
	Sensorial car-intellectual car: p>.10	Sensorial car-intellectual car: p>.10	Sensorial car-intellectual car: p=.067
	Behavioural car-intellectual car: p>.10	Behavioural car-intellectual car: p>.10	Behavioural car-intellectual car: p=.050

Table 1b. Paired samples t-tests

Item Type of car	Sensory-behavioural	Sensory-intellectual	Behavioural-intellectual
Mean ratings for sensory car type	t(45)=3.975 p<.001	t(45)=3.488 p=.001	t(45)=-.807 p=.424
Mean ratings for behavioural car type	t(33)=-1.393 p=.173	t(33)=-.752 p=.457	t(33)=.375 p=.710
Mean ratings for intellectual car type	t(28)=-.656 p=.517	t(28)=-2.488 p=.019	t(28)=-3.685 p<.001

Based on these analyses, it can be concluded that the attribute level manipulations have enabled us to develop car types that evoke significantly different anticipated experiences for the sensory and intellectual car type, but not for the behavioural positioning. These characteristics could thus be used to develop experientially different electric car propositions in advertising.

Although the analyses support the development of at least meaningful sensory and intellectual car positionings, the evidence is only partly convincing. One of the reasons for this is that, although significant, the differences in item ratings across cars are not very substantial. Indeed, the part-worth utilities resulting from the three conjoint analyses are relatively small, indicating that the manipulated attributes and levels do not result in substantially different experiential responses. An interesting question is whether the anticipated experiences across types of experience are correlated. This was tested in two different ways. First of all, based on the 109 individual respondents' ratings across the three selected cars, the bivariate correlation between each pair of experience items was calculated across the individual ratings (*analysis 3*). The correlation between the sensorial and the behavioural item is .755, between the sensorial and the intellectual one .726, and between the behavioural and the intellectual one .829 (all $p < .001$). In *analysis 4* correlations are calculated based on the ratings on the three experience items across the 48 different car types. The correlation between the sensorial and the behavioural item is .392, between the sensorial and the intellectual one .508, and between the behavioural and the intellectual one .868 (all $p < .001$). The overall picture that emerges from these correlational analyses is that individuals report different levels of experience triggered by different car types, but that, overall, the different experiences covary. In other words, different car types largely trigger 'more' or 'less' anticipated experiences in general, rather than triggering specific experiences at the expense of others.

5 Conclusion, discussion and further research

The purpose of this study was to test usefulness of the Brakus et al. (2009) and the Norman (2004) model to develop three distinct types of experiential car design and positioning, based on the anticipated experiences that different car characteristics would evoke. In that way the study is an exploration of the link between product development on the one hand and positioning strategy on the other. The separation between the field of marketing and advertising strategy and marketing action (creating new products) is longstanding (Durgee and Stuart 1987). The different orientations of these two fields are combined in this paper.

The attempt to develop car types that are clearly distinct in the type of anticipated experiences they evoke was only partially successful. First of all, a behavioural experiential car type could not be identified. Further, although car types

that are mainly sensorial and intellectual were found, the differences in experiential scores, though significant, are relatively small. On the other hand, there is also convincing evidence that individuals rather distinguish between car types as being 'a lot' and 'not so much' experiential, given the relatively high correlations between the various experiential responses.

There could be a number of reasons for these mixed results. The first possible explanation could be that the Brakus et al. (2009) and the Norman (2004) frameworks are not valid in that they do not represent independent experience levels but rather covarying dimensions of experience. This explanation is consistent with Norman's (2004) view that the three emotional processes work together to evoke a certain level of experience. The Brakus et al. (2009) experience framework was developed to measure different experiences of users of existing brands. This framework is applied here to the anticipated experience of subproduct types (various descriptions of electric cars). Therefore, another conclusion might be that the framework is not suitable for measuring various dimensions of these anticipated experiences, and that consumers, faced with expressing anticipated experiential responses, can only distinguish between 'a lot' and 'not so much', because of lack of real experience with existing products or brands. On the other hand, this would mean that product development and subsequent positioning strategies are incapable of evoking specific types of experiences and expectations, which contradicts marketing and advertising practice where experiential persuasive techniques are increasingly used. Although the electric car has been extensively featured in the media, and most people would at least have heard from it, it is still a fairly marginal phenomenon, and therefore most people would consider it as a substantial innovation. One of the reasons for the low differences in scores may be that the additional characteristics presented are being perceived as only relatively marginal additions to what is perceived as a substantial novelty (van Bree et al., 2010).

There could also be a number of technical reasons why the differences in scores between various types of experientially defined car types were relatively small. First of all, concept testing can only be done effectively if consumers can adequately understand the product's future impact on daily lives, if the new product has the same set of attributes as existing products and if evaluation does not require a long term learning process (Ortt et al., 2007). Maybe the respondents found the proposed product characteristics too new and too far away from what they normally experience with their cars, so that they were unable to express their responses to these new electric car characteristics. On the other hand, the attributes and levels tested were not that abstract and novel to expect an effect like this. Moreover, the product descriptions in the conjoint analysis were narratives explaining the experiential benefits and consequences of concrete

electric car attributes, and therefore may be expected to have enhanced the imagination of the respondents about their effect in real-life.

The purpose of the present study was to develop a parsimonious description of car types could be used to evoke differentiated anticipated experiences. This was only partially successful. Earlier research has revealed that individuals find verbalizing a vehicle's emotional character difficult (Ranscombe et al., 2010). Adding visual clues (pictures, drawings) in concept card design could make the anticipated experiences more vivid and therefore more imaginable (van den Hende et al., 2007). Obviously, there are many other ways in which electric cars can be designed to have a certain look and feel. Electric car propositions could also be differentiated on the basis of rational, utilitarian and functional elements rather than experiential ones. Moreover, symbolic car propositions could also be developed on the basis of evoked personality propositions. Electric cars are usually not developed from scratch, but as a line extension of existing car brands. Different car brands will have different personalities and evoke different types of experiences. The success of extending an existing car brand with a specific type of electric variant will probably also depend on the extent to which this extension and its positioning is fitting and credible in terms of (anticipated) experiences and projected personality. Investigating the responses of consumers to branded electric car line extensions is also an avenue for further research.

Another potential area for future research is to investigate the reactions of innovators and early adopters of new car technology, electric cars, or environmentally friendly consumer products in general. The successful introduction of an innovation is based on how appealing it is to these innovators and early adopters. Therefore they are an important market segment to study in early introduction stages of an innovation.

6 References

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Value Appeals in Chinese Television Advertising for Automobiles: A Content Analysis

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1 Introduction

In the context of the ongoing debate regarding the pros and cons of standardization versus local adaptation of international advertising, a large body of research has examined the content of advertising messages in a variety of countries. One of the topics in this stream of research has focused on the nature of value appeals in advertising across or within national markets. In recent years, international advertising researchers have increasingly shifted their attention to China because of the country's rapid economic growth and the size of its market. In parallel with China's economic growth, its advertising market has grown from RMB 10 million in 1979, to RMB 47.7 billion in 2001, and RMB 343.7 billion in 2010 (China Advertising Yearbook, 2011). The automobile industry has been one of the fastest growing industries in China in the past three decades. In 2009, China became the largest automobile market in the world (CAAM, 2009). Yet, very little is known about the characteristics of automobile advertising in China. This study seeks to fill the gap in the literature on Chinese automobile advertising by focusing on the use of value appeals.

1.1 Value appeals in advertising

Kluckhohn (1951) defines culture as "patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values" (p. 86).

Hofstede (1991) depicts values at the core of his 'onion model of culture' as the invisible manifestations of culture, whereas rituals, heroes and symbols are the visible manifestations or 'expressions' of culture. De Mooij (2010) applies this model to advertising by explaining that advertisers build rituals around their brands and use celebrities (heroes) and cultural symbols to differentiate products by linking them to the values of target consumers.

Pollay and Gallagher (1990) argue that cultural values are at the core of advertising messages and that creators of advertisements select from an array of possible values and corresponding appeals that typically endorse, glamorize, and

reinforce existing cultural values. Cultural values –as conveyed through advertising messages– thus constitute powerful forces that influence consumer purchasing decisions and life styles (e.g., Mueller, 1987; Tse et al., 1989; Watson et al., 2002).

Although there is a conceptual difference between values and appeals –while advertising appeals are based on values, they are strictly speaking not identical to them– many international advertising researchers alternatively and sometimes interchangeably use the terms ‘themes’, ‘values’ and ‘appeals’ when discussing and measuring the manifestations of culture in advertising content. In spite of this lack of a unified terminology, studies typically show that cultural themes, values, and appeals tend to vary by culture. Henceforth, we will use the term ‘value appeals’ to refer to verbal or pictographic advertising elements that are designed to represent and positively link the product to one or more of the supposed values of the target consumer.

1.2 Empirical studies on cultural value appeals in advertising

Studies on cultural value appeals in advertising have been conducted in countries like Brazil (Tansey et al., 1990), Canada (Pollay, 1983), India (Srikandath, 1991), Japan (Belk and Pollay, 1985; Belk and Bryce, 1986; Lin, 1993; Mueller, 1987, 1992), the United Kingdom (Frith and Sengupta, 1991; Frith and Wesson, 1991; Katz and Lee, 1992), and China (Chan and Cheng, 2002; Cheng, 1994, 1997; Cheng and Schweitzer, 1996; Ji and McNeal, 2001; Lin, 2001; Zhang and Shavitt, 2003; Zhang and Harwood, 2004). Most of these studies compare cultural values of advertisements from these countries with those from the United States or compare the advertising values between Eastern and Western cultures. In the last two decades, comparative studies of cultural values in advertisements between similar cultural or linguistic origins have also become popular (e.g., Chan and Cheng, 2002; Frith and Sengupta, 1991; Moon and Chan, 2005; Shao et al., 1999; Tse et al., 1989).

With the increase in interest in the Chinese market researchers have conducted comparative studies (e.g., Cheng and Schweitzer, 1996; Lin, 2001; Chan and Cheng, 2002), as well as single-market studies of Chinese advertising (Cheng, 1994, 1997; Zhang and Shavitt, 2003; Zhang and Harwood, 2004).

1.3 Influence of product category on value appeals

Previous research suggests that cross-national variation in value appeals is not only a result of cultural differences, but may also be a function of product category, due to differences in benefits associated with different product categories (Albers-Miller, 1997). Indeed, several studies have shown that cultural values depicted in advertising are a function of product category (e.g., Albers-Miller,

1997; Chan and Cheng, 2002; Cheng, 1994, 1997; Cheng and Schweitzer, 1996; Moon and Chan, 2005).

1.4 Value appeals in automobile advertising and Chinese automobile ads

Very few studies have investigated the use of value appeals in advertising for automobiles. In a comparative study of U.S. and Brazilian automobile ads, Tansy et al. (1990) found that urban themes were used more frequently in Brazil whereas leisure themes featured more frequently in the U.S. Lin (2010) studied the cultural values depicted in Chinese automobile magazine advertisements and reports that Chinese ads more often resort to symbolic than to utilitarian values. Previous studies have been limited to print advertising and no studies have exclusively focused on television advertising for automobiles. While print advertising may be more suitable for a high-involvement category such as automobiles, it can be argued that television advertising plays an important role in brand building and generating awareness among the general public, especially in China where television is the most important advertising medium (Wang, 2008; Cheng and Chan, 2009). This study thus seeks to fill the gap in the literature by focusing on value appeals in Chinese television advertisements for automobiles.

1.5 Research questions and hypotheses

We pose the following three research questions and two hypotheses.

RQ 1: What are the dominant value appeals in Chinese automobile ads?

We follow Cheng (1994) in analyzing value appeals by product origin of the advertised brand, i.e., by dividing advertisements into three types: domestic, joint venture, and imported products. We thus formulate the following research question:

RQ 2: What are the differences, if any, in value appeals across different automobile origins?

It is also conceivable that the use of value appeals may differ depending on the price category as the positioning and target user for low-end cars is expected to greatly differ from those for luxury cars. This leads us to ask the third research question:

RQ 3: Are there any differences in the use of value appeals in ads for low-end, middle-class and luxury automobiles?

Cheng and Schweitzer (1996) report that Chinese commercials resort more often to symbolic than to utilitarian values. In a study of Chinese automobile magazine advertisements Lin (2010) reached the same conclusion. We thus propose the following hypothesis:

H1: Chinese automobile commercials use more symbolic values than utilitarian values.

Zhang and Harwood (2004) further divide symbolic values into traditional and modern and categorize 13 value themes into three types: traditional, modern, and utilitarian values. They report that Chinese advertising uses modern values more frequently than traditional values. This is consistent with findings from studies by Cheng (1994, 1997), Cheng and Schweitzer (1996), Zhang and Shavitt (2003). Consequently we propose the second hypothesis:

H2: Chinese automobile commercials use more modern values than traditional values.

2 Method

Automobile commercials were systematically collected during the entire year of 2010. We recorded once a week in an interval of 8 days, i.e. January 1st (Friday), January 9th (Saturday), January 17th (Sunday), and so forth. We selected Channel 1 and Channel 2 of China Central Television (CCTV), the largest national television broadcaster with coverage of over 97% of the PRC's population. In order to cover the time slots with the highest audience concentration we recorded all programming during the six hours from 18:00 to 24:00. In order not to bias the sample towards high GRP advertisers and following Stern and Resnik (1991) the unit of analysis was each unique (non-duplicated) Chinese TV commercial for passenger cars. The final sample consisted of 191 ads.

In this research we employed the coding framework of cultural values developed by Cheng and Schweitzer (1996), which includes 32 cultural values originally based on Pollay's (1983) and Mueller's (1987, 1992) studies. We pre-tested the applicability and validity of these more general frameworks in the context of automobile commercials and decided to exclude the health value and to add three additional values we discovered in the pretest: affection appeal, environmentalism, and success.

Three Chinese native speakers fluent in English coded the sample. First, coders were trained with written instructions containing coding procedures, detailed explanations and definitions of all variables used in the study. Cultural values coded were either part of the visuals (e.g., characters, character interaction, background setting, visual symbols), verbal aspects (e.g., on-screen writing and captions, lines spoken by on-screen characters or by a voice-over), or music

used in the advertisements. As a pretest, the coders independently coded twenty Chinese car commercials that were not part of the sample. Disagreements and misunderstandings were resolved through discussion and retraining. Each of the three coders then independently coded all 191 commercials. The intercoder reliability was determined as the percentage of agreement among the three coders. The actual proportion of agreement for each coding variable of cultural value in this study was between 0.93 and 1.00. Based on the proportional reduction in loss (PRL) approach suggested by Rust and Cooil (1994), given the number of coders (3) and the number of categories (2), the PRL reliability measures for all the coding variables were over 0.99. Therefore, coding reliability was deemed satisfactory.

3 Results

Table 1 presents the results related to the first two research questions. The top five value appeals frequently used in Chinese automobile commercials (RQ1) were quality (75.4%), modernity (67.5%), effectiveness (59.7%), enjoyment (57.1%), and technology (44.5%).

Regarding the differences of value appeals manifest in Chinese TV commercials for different automobile origins (RQ2), the top five appeals for domestic automobiles are quality (72.0%), effectiveness (57.3%), modernity (56.1%), enjoyment (42.7%), and technology (41.5%); for automobiles of joint ventures they are quality (80.4%), modernity (76.3%), enjoyment (68.0%), effectiveness (63.9%), and technology (49.5%); for imported automobiles they are modernity (75.0%), enjoyment (66.7%), individualism (66.7%), quality (58.3%), success (41.7%) and effectiveness (41.7%).

We found statistically significant differences among these three automobile origins for modernity ($X^2=8.59$, $p<0.05$), enjoyment ($X^2=12.14$, $p<0.01$), and individualism ($X^2=22.86$, $p<0.01$) appeals, and for the relatively less frequently employed beauty ($X^2=7.09$, $p<0.05$), wealth ($X^2=14.18$, $p<0.01$), and respect for the elderly ($X^2=45.46$, $p<0.01$) appeals. We also conducted comparisons of value appeals in commercials across country or—in the case of Europe—region of origin, i.e., comparisons between ads for Chinese cars with those from Europe, the U.S., and Japan (see Table 2). For joint-venture cars, we used the country of the foreign joint-venture partner as the basis for classification. Compared to ads for Chinese cars, ads for European cars significantly use more modernity ($X^2=8.34$, $p<0.01$), enjoyment ($X^2=12.04$, $p<0.01$), individualism ($X^2=11.36$, $p<0.01$), social status ($X^2=5.20$, $p<0.05$), tradition ($X^2=7.55$, $p<0.01$), wealth ($X^2=5.73$, $p<0.05$), and respect for the elderly ($X^2=5.73$, $p<0.05$) value appeals. In contrast, ads for U.S. cars only significantly differ from ads for Chinese cars in their greater use of collectivism appeals ($X^2=4.58$, $p<0.05$). Finally, ads for Japanese cars only significantly differ from ads for

Chinese cars in their greater use of modernity ($X^2=5.84$, $p<0.05$), and enjoyment ($X^2=13.76$, $p<0.01$) appeals.

Table 1 Frequencies of value appeals manifest in Chinese automobile TV commercials by automobile origin

<i>Value appeals</i>	<i>Total (n=191) %</i>	<i>Domestic (n=82) %</i>	<i>Joint venture (n=97) %</i>	<i>Imported (n=12) %</i>	<i>X² Values (df=2)</i>
Quality	75.4	72.0	80.4	58.3	3.72
Modernity	67.5	56.1	76.3	75.0	8.59 *
Effectiveness	59.7	57.3	63.9	41.7	2.53
Enjoyment	57.1	42.7	68.0	66.7	12.14 **
Technology	44.5	41.5	49.5	25.0	3.13
Collectivism	20.9	22.0	22.7	0.0	3.41
Success	19.4	15.9	19.6	41.7	4.47
Family	18.8	18.3	21.6	0.0	3.30
Individualism	18.3	9.8	19.6	66.7	22.86 **
Competition	17.3	15.9	18.6	16.7	0.23
Safety	16.2	23.2	10.3	16.7	5.41
Economy	15.7	18.3	12.4	25.0	2.01
Social status	15.2	9.8	17.5	33.3	5.36
Nature	14.7	11.0	19.6	0.0	4.83
Leisure	14.1	13.4	16.5	0.0	2.46
Beauty	11.5	7.3	12.4	33.3	7.09 *
Affection appeal	9.9	9.8	10.3	8.3	0.05
Environmental concern	9.9	13.4	7.2	8.3	1.94
Popularity	9.9	12.2	8.2	8.3	0.81
Tradition	9.4	6.1	10.3	25.0	4.56
Youth	8.9	8.5	7.2	25.0	4.19
Work ethic	6.8	8.5	4.1	16.7	3.33
Uniqueness	6.3	3.7	7.2	16.7	3.30
Adventure	5.8	7.3	3.1	16.7	4.27
Wisdom	5.2	3.7	6.2	8.3	0.82
Patriotism	3.7	7.3	1.0	0.0	5.46
Magic	3.1	3.7	2.1	8.3	1.51
Convenience	2.6	2.4	3.1	0.0	0.42
Sexual appeal	2.1	2.4	1.0	8.3	2.86
Wealth	2.1	0.0	2.1	16.7	14.18 **
Courtesy	1.6	1.2	2.1	0.0	0.41
Nurturance	1.6	3.7	0.0	0.0	4.05
Respect for the elderly	1.6	0.0	0.0	25.0	45.46 **
Neatness	0.0	0.0	0.0	0.0	0.0

X² values indicate differences in the frequencies of each value appeal regarding origin of automobiles. * $p<0.05$ (df=2) ** $p<0.01$ (df=2)

Table 2 Frequencies of value appeals manifest in Chinese automobile TV commercials by automobile origin of country

Value appeals	China (n=82) %	Europe (n=44) %	X^2 ^a	US (n=17) %	X^2 ^b	Japan (n=38) %	X^2 ^c
Quality	72.0	79.5	0.87	64.7	0.36	78.9	0.66
Modernity	56.1	81.8	8.34**	47.1	0.46	78.9	5.84 *
Effectiveness	57.3	63.6	0.47	70.6	1.03	68.4	1.34
Enjoyment	42.7	75.0	12.04**	41.2	0.01	78.9	13.76**
Technology	41.5	52.3	1.35	29.4	0.86	52.6	1.31
Collectivism	22.0	9.1	3.29	47.1	4.58*	21.1	0.01
Success	15.9	22.7	0.91	29.4	1.74	21.1	0.49
Family	18.3	15.9	0.11	35.3	2.44	21.1	0.13
Individualism	9.8	34.1	11.36**	17.6	0.89	21.1	2.87
Competition	15.9	9.1	1.12	23.5	0.58	23.7	1.06
Safety	23.2	9.1	3.80	17.6	0.25	13.2	1.63
Economy	18.3	15.9	0.11	17.6	0.00	10.5	1.18
Social status	9.8	25.0	5.20*	5.9	0.26	21.1	2.87
Nature	11.0	13.6	0.19	17.6	0.59	23.7	3.29
Leisure	13.4	18.2	0.51	5.9	0.75	18.4	0.51
Beauty	7.3	15.9	2.28	5.9	0.04	10.5	0.35
Affection appeal	9.8	9.1	0.01	11.8	0.06	13.2	0.31
Environmental concern	13.4	6.8	1.26	5.9	0.75	7.9	0.77
Popularity	12.2	6.8	0.89	11.8	0.00	10.5	0.07
Tradition	6.1	22.7	7.55**	5.9	0.00	5.3	0.03
Youth	8.5	13.6	0.80	0.0	1.56	7.9	0.01
Work ethic	8.5	6.8	0.12	17.6	1.29	0.0	3.44
Uniqueness	3.7	11.4	2.86	0.0	0.64	5.3	0.17
Adventure	7.3	4.5	0.37	5.9	0.04	5.3	0.18
Wisdom	3.7	9.1	1.61	0.0	0.64	2.6	0.08
Patriotism	7.3	2.3	1.39	0.0	1.32	0.0	2.93
Magic	3.7	4.5	0.06	0.0	0.64	2.6	0.08
Convenience	2.4	2.3	0.00	5.9	0.57	2.6	0.00
Sexual appeal	2.4	4.5	0.41	0.0	0.42	0.0	0.94
Wealth	0.0	6.8	5.73*	0.0	0.00	2.6	2.18
Courtesy	1.2	4.5	1.36	0.0	0.21	0.0	0.47
Nurturance	3.7	0.0	1.65	0.0	0.64	0.0	1.43
Respect for the elderly	0.0	6.8	5.73*	0.0	0.00	0.0	0.00
Neatness	0.0	0.0	0.00	0.0	0.00	0.0	0.00

X^2 values indicate differences in the frequencies of each value appeal regarding automobile origin of country. a: X^2 values between China and Europe (df=1) b: X^2 values between China and U.S. (df=1) c: X^2 values between China and Japan (df=1) * p<0.05 ** p<0.01

Table 3 Frequencies of value appeals manifest in Chinese automobile TV commercials by price categories of automobiles

Value appeals	Low end (n=63) %	Middle class (n=98) %	Luxury (n=30) %	X ² values (df=2)
Quality	68.3	78.6	80.0	2.61
Modernity	39.7	77.6	93.3	35.88 *
Effectiveness	57.1	57.1	73.3	2.75
Enjoyment	49.2	55.1	80.0	8.18
Technology	27.0	53.1	53.3	11.68 *
Collectivism	25.4	19.4	16.7	1.23
Success	12.7	20.4	30.0	4.03
Family	33.3	14.3	3.3	14.70 *
Individualism	7.9	16.3	46.7	20.91 *
Competition	9.5	21.4	20.0	3.99
Safety	20.6	13.3	16.7	1.54
Economy	22.2	13.3	10.0	3.20
Social status	4.8	15.3	36.7	16.07 *
Nature	14.3	15.3	13.3	0.08
Leisure	17.5	11.2	16.7	1.42
Beauty	7.9	12.2	16.7	1.62
Affection appeal	12.7	8.2	10.0	0.88
Environmental concern	17.5	6.1	6.7	5.93
Popularity	12.7	10.2	3.3	2.00
Tradition	9.5	6.1	20.0	5.18
Youth	6.3	9.2	13.3	1.24
Work ethic	3.2	8.2	10.0	2.08
Uniqueness	1.6	7.1	13.3	5.01
Adventure	4.8	5.1	10.0	1.19
Wisdom	0.0	8.2	6.7	5.30
Patriotism	3.2	4.1	3.3	0.10
Magic	4.8	2.0	3.3	0.94
Convenience	3.2	3.1	0.0	0.96
Sexual appeal	1.6	2.0	3.3	0.30
Wealth	0.0	1.0	10.0	11.04 *
Courtesy	1.6	2.0	0.0	0.62
Nurturance	4.8	0.0	0.0	6.19
Respect for the elderly	0.0	0.0	10.0	16.36 *
Neatness	0.0	0.0	0.0	0.00

Low end: automobile prices below 100,000 RMB. Middle class: prices between 100,000 RMB and 250,000 RMB. Luxury: prices above 250,000 RMB. X² values indicate differences in the frequencies of each value appeal regarding the price level of automobiles. * p<0.05 ** p<0.01

Table 3 addresses RQ3. The top five frequently used value appeals for low-end automobiles are quality (68.3%), effectiveness (57.1%), enjoyment (49.2%), modernity (39.7%), and family (33.3%); for middle-class automobiles they are quality (78.6%), modernity (77.6%), effectiveness (57.1%), enjoyment (55.1%), and technology (53.1%); for luxury automobiles they are modernity (93.3%), enjoyment (80.0%), quality (80.0%), effectiveness (73.3%), and technology (53.3%). Thus the top four dominant value appeals are found across the three price categories. We found statistically significant differences among three price categories for modernity ($X^2=35.88$, $p<0.01$), enjoyment ($X^2=8.18$, $p<0.05$), technology ($X^2=11.68$, $p<0.01$), family ($X^2=14.70$, $p<0.01$), individualism ($X^2=20.91$, $p<0.01$), social status ($X^2=16.07$, $p<0.01$), wealth ($X^2=11.04$, $p<0.01$), nurturance ($X^2=6.19$, $p<0.05$), and respect for the elderly ($X^2=16.36$, $p<0.01$).

In order to test H1 we divided all value appeals into two categories (utilitarian and symbolic) and calculated the total frequencies for utilitarian value appeals and for symbolic value appeals across all commercials. The total frequency for utilitarian appeals is 390, whereas the total frequency for symbolic appeals is 712 ($X^2=94.1$, $p<0.001$), supporting H1.

To test H2 we subsequently sorted symbolic appeals into two categories (modern and traditional) and calculated the total frequencies separately. Total frequency for the former is 536, while total frequency for the latter is 176 ($X^2=182.0$, $p<0.0001$), supporting H2.

In addition, we examined the differences of symbolic versus utilitarian, and modern versus traditional value appeals within each automobile origin and price category separately. All comparisons are statistically significant and show that more symbolic than utilitarian, and more modern than traditional appeals are used, providing additional support for H1 and H2. Furthermore, we compared the differences of each of the four appeal (sub-) categories (i.e., symbolic, utilitarian, modern, and traditional) across automobile origins as well as price categories. Symbolic and its sub-category modern appeals are used least frequently in commercials for domestic cars but most heavily for imported cars. The use of symbolic, utilitarian, and modern appeals increases with an increase in price level, whereas the use of traditional appeals shows an opposite pattern: it increases when price level decreases.

4 Discussion

4.1 Symbolic value appeals

If we only look at the top five dominant value appeals, three appeals are utilitarian (quality, effectiveness, and technology) and two appeals are symbolic (modernity and enjoyment), implying that utilitarian appeals outnumber symbolic appeals. However, and consistent with the findings of previous studies on Chi-

nese commercials in general (Cheng and Schweitzer, 1996) and print ads for automobiles in particular (Lin, 2010), this study finds that Chinese car ads tend to use more symbolic value appeals than utilitarian value appeals. Besides modernity and enjoyment, many symbolic value appeals, such as collectivism, success, family, safety, nature, and social status are frequently used. In line with findings of prior studies (Chan and Cheng, 2002; Cheng and Schweitzer, 1996; Zhang and Harwood, 2004), this study finds that modernity is the most frequently used symbolic appeal in Chinese automobile commercials. One reason for this may be that in developing economies, advertisers use this appeal to show the modernization of the industry and strike a chord with consumers. Second, in recent years the word ‘modernity’ —a term associated with ‘newness’ and/or ‘advanced technology’— has been in fashion in China (Cheng and Schweitzer, 1996; Zhang and Harwood, 2004). Modernity has also been an important keyword in the nation’s so-called ‘Four Modernizations’ program, which sets achievement of the basic modernization of industry, agriculture, science, and technology as the nation’s primary goal. As a result, Chinese consumers appear to have a penchant for products with perceived ‘modern’ characteristics.

4.2 *Utilitarian value appeals*

The fact that utilitarian appeals outnumber symbolic appeals in the top five of value appeals suggests that utilitarian value appeals are very important in Chinese automobile advertising. One possible explanation for the relatively high frequencies of utilitarian appeals could be the high-involvement and high-tech nature of the automobile product category. Previous research suggests that consumers of high-involvement products tend to find ads containing more utilitarian information more helpful and effective (Mueller, 1987). In addition, advertising for high-tech products tends to focus more on utilitarian appeals in the form of technical product features. Zhang and Harwood (2004) report that the combined category of quality and effectiveness constituted the most frequently used value appeals —along with modernity values— in the automobile product category. While their study only included a very small sample of 14 automobile ads, our study confirms these findings.

4.3 *Differences in frequencies of value appeals by automobile origins*

Regarding the use of value appeals by automobile origins, use of Cheng’s (1994) domestic-joint venture-imported categorization reveals no significant differences for most of the value appeals. However, modernity, enjoyment and individualism appeals are used relatively less in ads for domestic cars as compared with those for imported and joint-venture cars. Furthermore, when we use a narrower country- or region-of-origin categorization, a more striking pattern emerges: Compared to U.S. and Japanese brands, European brands tend to dif-

ferentiate their use of cultural value appeals much more from that of Chinese brands, which may be due to the fact that European brands are relatively more often positioned in the luxury segment. Even though we did not specifically address advertising strategies in this study, the results seem to suggest that especially Japanese and U.S. automobile manufacturers adapted their commercials to China's culture and market characteristics.

4.4 Differences in frequencies of value appeals by price categories

A clear tendency of value appeals is found among different automobile price categories or segments. Price is a reflection of the car's quality, performance, components, accessories, and technology level. It is therefore logical that ads for luxury cars would stress added value. Consequently, we find that both utilitarian and symbolic values are used more frequently as the price level goes up. The use of modern cultural value appeals such as modernity, enjoyment, and individualism increases with price level. We see two possible explanations for this phenomenon. The first explanation is that this reflects that luxury car manufacturers target wealthier and more sophisticated consumers who look for different benefits than first-time car buyers. The second explanation is that most luxury car brands in China are from Europe and that these brands tend to use a positioning strategy stressing foreignness. In turn, this positioning strategy may be the logical result of the fact that these luxury brands often appear to use standardized ads that were not specifically designed for the Chinese market. In fact, several commercials in our sample for Mercedes and BMW cars appeared to be ads originally created for Western markets, and as a result tended to use Western—a term which in the context of an Asian developing nation such as China may be roughly equivalent in meaning to 'modern'—value appeals.

In contrast, the frequencies of traditional values such as collectivism, family, and popularity tend to increase as price level goes down. The reasons for this phenomenon may be that the majority of Chinese automobile buyers are first-time, less knowledgeable buyers. In addition, the frequent use of family appeals reflects the fact that these cheaper cars are usually positioned as family cars. Finally, the fact that word-of-mouth is particularly important to Chinese consumers in the decision-making process (Cho et al., 1999), may explain the use of collectivism and popularity value appeals.

5 Implications

Value appeals are assumed to influence consumer behavior to some extent. It is therefore important for advertisers to appeal to the values that motivate consumers. While it is crucial to explore how consumers perceive the value appeals encoded in advertisements, it is also important to inventory the value appeals that are currently used in advertising for automobiles in China. In doing so, this

study finds that some value appeals are universally important in current Chinese automobile advertising (e.g., quality, effectiveness, and modernity), whereas some value appeals appear to be more related to price category and country-of-origin of the manufacturer. Thus, this study reveals the patterns of value appeals that underlie positioning strategies and advertising executional aspects and shows that these patterns differ by country of origin and price segment. We believe that especially the finding regarding within-category differences based on price segment raises interesting questions and represents a significant contribution to the literature on value appeals in advertising in general, and automobile advertising in particular.

These findings also have practical implications. While advertising practitioners create advertising strategies incorporating value appeals that they deem effective they are probably not aware of the general patterns across country of origin or price categories uncovered by this study. These patterns can be used as a planning tool for positioning and differentiation strategies. There are also a number of managerial implications of our study's findings. European car advertisers have a technological and prestige-based competitive advantage in the higher price categories that they exploit by differentiating and positioning their brands by linking them to modern, Western, and status-related symbolical values (modernity, enjoyment, individualism, social status, and wealth), which are more difficult to copy or claim for Chinese manufacturers. Thus, it appears advisable that European manufacturers continue their current positioning and differentiation strategies. Japanese and U.S. manufacturers should consider whether they are doing enough to differentiate their advertising from that of Chinese manufacturers and should perhaps focus more on positioning strategies that leverage their respective competitive advantages. Foreign car manufacturers thus face the dilemma that they need to use positioning strategies that are not easily copied by Chinese local competitors without alienating Chinese target consumers in the process. Finally, Chinese manufacturers appear to be mostly following the value appeal approaches of Japanese, American, and joint venture manufacturers. This means they can only differentiate their offerings based on price. Chinese manufacturers—rather than copying advertising by foreign manufacturers—should perhaps try to connect their brands to more typically Chinese traditional values when positioning their brands to differentiate them from car brands of foreign origin.

6 Limitations and future research

Although this research makes important contributions to the existing literature, some limitations must be kept in mind when drawing conclusions from the reported results. First, our findings only reflect what advertisers deem to be effective advertising. Future studies should measure consumer perception and evaluation of cultural value appeals (modern, traditional, and utilitarian) in Chinese

automobile advertising. Only then can we draw solid conclusions pertaining to the effectiveness of different value appeals. Second, as we have not surveyed advertising agencies and advertisers we do not know to what extent headquarters of foreign automobile advertisers and global advertising agencies influence advertising in China and to what extent local Chinese partners in joint ventures and Chinese creative personnel in global advertising agencies influence decision making regarding advertising strategies and creative content. Third, the coding framework used in this study inherently has a Western bias and only included a few Chinese traditional values. While our study confirms the limited use of the subset of traditional values included in the measurement instrument (i.e., tradition, patriotism, and respect for the elderly), future research should further explore the role of traditional (Confucian) values in Chinese advertising and consumer behavior. Finally, due to the fast developing automobile market and relatively immature advertising industry and consumer behavior in China, the dominant value appeals used in Chinese automobile commercials may change in the future. Future studies should therefore also investigate longitudinal cultural changes in Chinese automobile advertising.

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Part IV. Reception of Advertising

Face Value: Images of Headless Decorative Models Increase Consumer Identification and Product Attitudes

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1 Introduction

Although most online retailers display clothes and apparel in photographs worn by human fashion models, there are some notable variations (Khakimjanova and Park 2005). A number of important online retailers, ranging from retail giant Wal-Mart to high-end online fashion retailer Net-a-Porter, all crop images on their websites rather drastically by removing heads and faces of decorative models so that the depicted clothes seem worn by “headless” models (Considine 2011). Even though this online retail practice, presumably with the objective of cutting costs in producing online product images, has yet to evoke research interest, the sometimes-stereotypical images of especially female models used in advertising have been a topic of research (and rather fervent debate) for quite some time (Wolin 2003, Venkatesan and Losco 1975). Lately this discourse has centered on the negative effect of exposure to stereotypical images of models on particularly vulnerable groups in society, such as adolescent women (Richins 1991, Dittmar and Howard 2004b). Often the proposed solution to this dilemma is to increase diversity and representativity among the models used for commercial images in terms of e.g. weight, age and ethnicity, as in for example the Dove “real women” campaign (Bisseil and Rask 2010). Cropping images to remove heads and faces of models is in a sense the antithesis of striving to portray diversity. Instead of being more representative and diverse, the models as a group are standardized, rendered more neutral in that they are deprived of many individual characteristics by the removal of their heads and faces.

A study by Conley and Ramsay (2011) showed that cropping body parts of model images in advertisements is more common for female models, a practice sometimes described as “dismemberment” or as an attempt at “dehumanizing” the women represented. According to the same study cropping body parts from model images is however not very common in advertisements, nor does it seem to be specifically targeted at heads and faces. A wealth of research findings from the fields of psychology and neurology indicate that the face is of central importance in person perception and in assessing the attractiveness of others (Langlois et al. 2000). Considering that attractiveness is a defining trait of decorative models, removing heads and faces of models in product images seems

counterintuitive, yet as mentioned this is a relatively widespread practice among some very successful online retailers. Could it be possible that these headless model images have other advantages than being less costly to produce? By removing heads and faces of models in product images, many of the cues used for social comparison with the models will also be removed. This could allow consumers to envision an intended user of the products more freely, thereby facilitating their identification with the intended target group of the products. The purpose of this paper is a first attempt at examining consumer reactions to cropped, headless models. As many online retailers employ such images, the industry should benefit from an increased knowledge of consumer reactions to them. In addition to this practical contribution to the field of retailing, the main contribution of this study is adding to research in advertising and consumer behavior on the use of human models in commercial images.

2 Social Categorization and Social Comparison

According to social comparison theory (Festinger 1954) we humans have a universal drive to evaluate ourselves, often based on comparisons with other persons. Social comparison with models in advertisements and other commercial images is common among many consumers, and unfavorable comparisons with models can lead to self-discrepancies followed by negative emotions (e.g. Bissell and Rask 2010, Dittmar and Howard 2004b, Dittmar, Halliwell and Stirling 2009). A study by Richins (1991) among young women showed social comparisons with models in advertisement to be common, and that the resulting self-discrepancies resulted in elevated comparison standards for attractiveness and lowered satisfaction with their own attractiveness. These tendencies are not exclusive to young women; a study among adult professional women for example linked an individual tendency to make social comparisons with models to higher levels of body-focused anxiety (Dittmar and Howard 2004b). Interestingly, a recent study by Bissell and Rask (2010) including less stereotypical models based on the Dove “real women” advertising campaign did not have reverse effects on respondents, as their levels of self-discrepancy did not decrease with exposure to counter-stereotypical models. As the authors point out it is possible that their manipulation, brief exposures to counter-stereotypical images, was too weak to counter the societal predominance of more stereotypical models. The commercial use of decorative models in marketing is not entirely uncontroversial these days. In fact, some countries are considering legislation to regulate what and how decorative models can be portrayed, e.g. against employing too young and too underweight models, and against manipulating images digitally without disclosure (Dittmar and Howard 2004a).

So why then, in light of this discussion, are stereotypical models still used so frequently? One reason could be the belief that advertisements containing stereo-

typically attractive models will be more efficient. In other words, advertisers are simply afraid that non-stereotypical models will not be as efficient as their stereotypical counterparts, since they will presumably not be considered as attractive (Dittmar and Howard 2004a). Our social comparison tendencies could also pose a problem even if the comparisons turn out in our favor. Theoretically, if products are portrayed together with a model who is identified as part of an out-group, maybe even an avoidance group that certain consumers would not like to identify with, the negative associations could affect advertisement evaluations negatively (Escalas and Bettman 2005). An example supporting this line of argumentation is a study by Green (1999), where participants of the same ethnicity as the models evaluated advertisements more positively, especially when they identified strongly with their own ethnic group. Interestingly, other studies indicate that advertisements featuring stereotypically thin and average-size models can be equally effective, especially if the models are otherwise rated as equally attractive (Dittmar and Howard 2004a).

Social cognition in consumers exposed to commercial images is of course not limited only to social comparison with images of other humans, but also extends to other image elements. Consumers for example make attributions and social categorizations based on products (e.g. Solomon 1983, 1988, Escalas and Bettman 2005, Calder and Burnkrant, 1977). The product, in this study an article of clothing, is in itself a stimulus used for attributions and social categorization of the intended user of the product. Products are consumption symbols, forming a language, which we from an early age learn to read so well that by merely seeing a product we make inferences about who it is intended for, just as we reversely draw inferences about others based on their product choices (Belk, Bahn and Mayer 1982). The behavior of choosing a certain product in itself also forms the basis for attributions that we make about other consumers (Calder and Burnkrant 1977). With this in mind we propose that cropping out heads and faces of models in images, thereby removing many of the cues used for social comparisons, increases the influence of the product in cognitive processing. In other words, consumer processing of images will rely less on social comparison with models and more on social categorization based on products. Removing central features of the decorative models will free consumers from social comparisons with the models, thereby allowing them to form a less restrictive image of the intended users: the target group for the products. Allowing consumers to categorize an intended user more broadly will also allow them to identify themselves as intended users to a higher degree. We hypothesize the following:

H1: Consumer identification with the product target group will be higher for products displayed in images with cropped (headless) models than with uncropped models.

3 Advertising Effectiveness, Decorative Models and the Role of Faces in Person Perception

Another relevant topic is how cropping of decorative models affects other, more traditional consumer-related effects of marketing communications. Even though model attractiveness is assumed to have positive effects on consumer reactions, negative effects on consumers as individuals have also been demonstrated (Dittmar and Howard 2004a, Richins 1991). According to social comparison theory (Festinger, 1954) social comparison is not only largely automatic and unconscious, there is also a strong preference for situations where comparisons are positive, or at least where the negative discrepancies in the comparisons made are small. When comparisons are not favorable to our selves we experience a need to correct this perceived imbalance, by for example changing our comparative standing, or we risk suffering lowered self-esteem. These effects have been documented in advertising research, where exposure to images of attractive models led individuals to experience lower self-esteem or desire to alter their own appearances, through for example dieting or by using products to enhance their appearances (Richins 1991). It could be argued that when social comparisons with models evoke negatively valenced emotions, this in turn will cause lower attitudes and purchase intentions for co-exposed products (Forgas 1995). Such adverse reactions among women to decorative models in advertisements have been demonstrated previously. Bower (2001) was able to show that comparison with highly attractive models among female participants was related to negative affect and lower ad effectiveness across several studies. Conversely, attitudes towards models that in social comparison are perceived by consumers as more similar to themselves, i.e. models they can identify with or view as belonging to the same group, should be more positive (Greenwald and Banaji 1995). Still, as mentioned, highly attractive decorative models are widely used and of demonstrated effectiveness in advertisements and other commercial images. Findings on what the individual characteristics of the model need to be, or how the models need to be portrayed to achieve these positive effects, are less clear.

When it comes to explaining positive effects of co-exposing products with decorative models, perhaps the most common explanation is that they are due to a halo effect from the attractiveness of the models. Over the years a great number of research studies have demonstrated that we humans are prone to ascribe positive traits to individuals just on the basis of them being physically attractive. Perhaps still the most cited example of research on such attractiveness halo-effects in trait attribution is Dion, Berschied and Walster (1972), who summarized their findings with the quote "what is beautiful is good". In the case of decorative models, the assumption is that the physical attractiveness of the models influences evaluative judgments on other dimensions of them positively,

including images that they are in and products that they are co-exposed with. Halo effects are implicit in their nature, and the strategy of placing products in a context with attractive objects, such as celebrities and beautiful models, is often deliberately used in advertising to influence attitudes towards the message of the advertisement (Greenwald and Banaji 1995). Although the use of decorative models in marketing communications has been studied for many years, findings have varied as to what their specific benefits are, e.g. what the optimal level of model attractiveness is and what the effects of co-exposure with different product types are (Baker and Churchill 1977, Chestnut, Lachance and Lubitz, 1977, Bower and Landreth 2001).

That there are positive effects of using attractive models in commercial images is quite clear, but how the models should be (re)presented to achieve these positive effects is not as evident. There is no evidence that models must be portrayed in a certain manner (e.g. smile or have heads), or even adhere to some set of stereotypical beauty standards in order to have positive effects on consumer reactions. As mentioned Dittmar and Howard (2004a) found that advertisements with average-size models were as effective as advertisements with extremely thin models when the two types of models were otherwise equally attractive. The perceived attractiveness of the models and consumer reactions to them also depend on characteristics of the consumers. Not only do physical characteristics of consumers such as age, body type and ethnicity matter in social comparisons, but some individuals are more prone to comparison with others in general (and fashion models in specific) than others (Richins 1991). Other social cognition tendencies of consumers also matter; effects of different types of models depend not only on the ethnicity of the consumers, but on their level of identification with their own ethnic group (Green 1999), and not only on the relative attractiveness of the consumers but on their level of thin-ideal internalization (Dittmar and Howard 2004b).

As mentioned, negative reactions in individuals particularly sensitive to comparisons with models, such as adolescent women, is one of the reasons why many advocate increased diversity and representativity among the decorative models portrayed in marketing (Bisseil and Rask 2010). In a sense the online retail practice of cropping out heads and faces of models is the antithesis to increased model diversity, because it reduces individual variations among the models. By cropping out the heads of decorative models in product pictures the models are standardized in that they are deprived of many of their individual, unique characteristics and thereby rendered more neutral. Few previous studies have covered how the manner in which models are portrayed affects consumer reactions to images, even though there are many variations in how models are portrayed in marketing images. For example, in online fashion retail there is the option of presenting products in pictures without any model at all (Kha-

kimdjanova and Park 2005). Not many studies to date have compared images with and without models directly, but those that have indicate higher attitudes and purchase intentions for clothes displayed on models, which is also the most prevalent practice in online retail (Söderlund and Lange 2006, Khakimjanova and Park 2005, Park, Lennon and Stoel, 2005).

To our knowledge no previous studies, neither in advertising research nor in media-consumption research, have included images of cropped, headless models. Cropping out heads of models does not only remove many unique characteristics of the models but also removes their faces, which are of great perceptual importance to us and central to our attractiveness ratings of others. Faces are central to our perceptive capabilities, and a wealth of information can easily be derived from just looking at another human face, such as recognition of familiar faces, emotional expressions and direction of overt attention (Kanwisher and Moscovitch 2000). Not only are our perceptive abilities geared towards face recognition and processing, we also have a preference for human faces and even as newborn babies we are drawn to face-like forms (Johnson, Dziurawiec, Ellis and Morton, 1991). In our attractiveness judgments of others the face is of central importance, and in many studies of attractiveness facial attractiveness is singled out (Langlois et al 2000). Recent studies in person perception have found evidence of a composite person effect, implying holistic processing of the head and body as a unit, much like in face processing (Aviezer, Trope and Todorov, 2012). This effect seems to be diminished for headless bodies (Yovel, Pelc and Lubetzky, 2010). When even the most basic perceptual processing thus differs for headless bodies and considering the supposed importance of attractiveness halo effects, it could be argued that consumers should prefer images to include human models with heads and faces, and that this preference should extend to the products they are co-exposed with. We however propose that the negative influence of social comparisons with the models, together with the preference for self-related objects, should be stronger and hypothesize that:

H2: Consumer attitudes will be more positive for products displayed in images with cropped (headless) models than with un-cropped models.

4 Method

4.1 Research Design

A between-subjects experiment was conducted in which subjects were randomly allocated to one of four experiment groups. Sets of stimulus images for two clothing products, (1) a shirt and (2) a dress, were sampled from retail websites. Two different clothing products were used to examine whether results would be

the same for different product categories. Each set consisted of two pictures of the exact same clothing product; (1) a cropped photograph of a female model (head and face not visible) wearing the product and (2) an un-cropped photograph of a female model wearing the product (including her head and face). All pictures were collected from commercial online retail websites to increase external validity. The clothing products were from the same brand and of the same model and color, but the two types of product pictures were collected from the websites of two different online retailers of apparel for women. All stimulus images are typical to the online fashion retail industry, but were chosen and in some cases slightly modified to minimize variations not related to the experiment (such as background color). To help select the pictures a panel of judges (researchers in marketing and psychology) was asked to review 20 sets of pictures, all collected from the same two websites. The sets were judged in terms of how similar the depictions of the clothing and the bodies of the models were between the pictures in each set. The sets of pictures selected for the experiment was chosen based on panel judgments. All pictures were cropped below the bottom hemline of the garments, a shirt worn untucked and a knee-length dress (i.e. not showing legs or feet of models).

4.2 *Measures*

To measure identification with target group for the product we constructed a three-item scale (“Someone like me could wear this shirt/dress”, “This shirt/dress is intended for someone like me” and “Someone like me could own this shirt/dress”) ranging from 1 (“disagree completely”) to 10 (“agree completely”). Cronbach’s alpha for this scale was .95. For attitudes towards the products a 10-point bipolar scale with four adjective pairs (bad - good, dislike it - like it, unpleasant - pleasant, negative impression - positive impression) was used. Similar measures have previously been used by e.g. Cronley et al. (1999) and Söderlund and Lange (2006). Cronbach’s alpha for the items in this scale was .96.

4.3 *Participants*

The participants (N = 408) were part of a web panel of consumers maintained by YouGov, a marketing research company specialized in panel data. YouGov also conducted the web survey, which was only open to female web panelists. All respondents were women, ages of the participants ranged from 17 to 64 years, with a mean age of 39.72 years and there was no significant difference in age between the treatment groups. The four stimulus pictures were included in separate versions of the same online questionnaire, containing the measurements described above.

5 Analysis and Results

To address the hypotheses a two-way ANOVA was conducted for each hypothesis to compare the effect of image type and clothing product on the dependent variables. Since type of clothing was only included in the analysis to examine whether results were replicable across product categories, and as there were no significant interaction effects only the main effects for image type (no head/head) are reported here. A significance level of .05 was used throughout the analysis. In testing hypothesis 1, the omnibus F-test for the effect of image type and clothing product on consumer identification with the target group for the product was significant, $F(3,404) = 13.32$, $p < .01$. An examination of main effects showed higher target group identification ratings for the cropped model images ($F = 29.45$, $p < .01$, $\eta^2 = 0.07$). Mean ratings per image type were 4.62 (cropped model) and 3.69 (un-cropped model). These results support hypothesis 1, indicating that consumers were able to identify to a higher degree with the target group of the clothing when depicted together with headless models. As for hypothesis 2, the omnibus F-test for the effect of image type and clothing product on attitudes for the product was significant, $F(3,404) = 7.49$, $p < .01$. A main effects analysis showed higher attitudes for the cropped (headless) model images ($F = 20.87$, $p < .01$, $\eta^2 = 0.05$). Mean attitude ratings per image type were 6.14 (cropped model) and 5.09 (un-cropped model), meaning that the consumers exhibited more positive attitudes for clothing displayed in the cropped-model images. Hypothesis 2 was thus supported.

6 Discussion

Not only was consumer identification with target groups for the products higher for the cropped pictures, attitudes were also higher for products when they were exposed together with cropped, "headless" model images. These findings are certainly in line with the online retail practice of co-exposing products with "headless" models in product images, and are especially interesting given that there is a growing pressure on companies to introduce less stereotypical, more diverse and representative model images in their marketing communications. By complying with these demands however, marketers risk ending up portraying products together with avoidance groups, which could have adverse effects on consumers. Following the findings of this study, an alternative approach to counter stereotypical images in advertising would be to remove stimuli in images evoking too much social comparison, in order to open up for less restrictive interpretations of intended users and target group, or at least to try to avoid social comparison with models as much as possible in situations as close to a purchase situation as online retail. Even though the findings of this study are from the context of online retail, the main contribution of the study is an increased

knowledge of consumer reactions to how decorative models are portrayed in marketing.

7 Limitations and Further Research

As this study was a first attempt at examining consumer reactions to cropped, headless models and its theoretical implications, more research in the area is required to understand the mechanisms behind the effects demonstrated here fully. Future research should include possible mediators in the analysis, such as consumer degree of social comparison with the model and consumer propensity to make comparisons with fashion models. On a final note, even in light of our present findings we would still advocate caution in using images of beheaded bodies in commercial images. One could easily imagine negative associations; decapitation should be a concept loaded with historical and mythological connotations.

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Appreciation and Effects of Sponsorship Disclosure

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1 Introduction

With the continuing growth of the paid inclusion of brands in television programs, the lines between editorial and commercial content are more and more blurred. This has attracted criticism from consumer advocacy groups, public policy officials, the media and consumers, claiming that sponsored content in TV programs is unethical and deceptive (Cain, 2011; Kuhn, Hume, & Love, 2010). They argue that because this form of advertising is embedded into program content, the commercial intent is kept hidden (Bhatnagar, Aksoy, & Malkoc, 2004). Consequently, viewers are not always aware of the commercial and persuasive purpose of sponsored program content, and - as a result - they do not activate their cognitive defences and can be influenced without being aware (Kuhn et al., 2010; Lee, 2008). This is assumed to be a violation of consumers' right to know when they are being subjected to an advertisement (Lee, 2008; Nebenzahl & Jaffe, 1998).

In reaction to these concerns, broadcasters in the European Union are now obligated to disclose sponsored content in TV programs, and such regulations are being discussed in the United States (Cain, 2011; Schejter, 2006; Woods, 2008). Article 11 in the European Audiovisual Media Services Directive (2010) states: "viewers shall be clearly informed of the existence of product placement. Programmes containing product placement shall be appropriately identified at the start and the end of the programme, and when a programme resumes after an advertising break, in order to avoid any confusion on the part of the viewer." In other words, sponsorship disclosures should explicitly inform audiences when content is sponsored, to guarantee fair communication and avoid persuasion without audience awareness.

Little is known about viewers' opinions about sponsorship disclosure and about its effects. Therefore, this research has two goals. First, it investigates how viewers appreciate sponsored content in TV programs and sponsorship disclo-

sure. Second, it tests the effect of sponsorship disclosure on viewers' processing of the program content.

2 Appreciation of sponsored content and sponsorship disclosure

Various studies have already investigated viewers' opinions about sponsored content (or brand placement) in TV programs (e.g., Karrh, Frith, & Callison, 2001; Neijens & Smit, 2003; Newell, Blevins, & Bugeja, 2009; Ong, 2004). Overall, these surveys demonstrated that television viewers are relatively positive toward this phenomenon. For instance, a survey among 1450 Dutch citizens demonstrated that most viewers had a neutral (54%) or positive (13%) evaluation of sponsored content in TV programs (Neijens & Smit, 2003). Other studies show that, in general, viewers do not mind to see branded products in TV programs (Newell et al., 2009) and do not think brand placement is an unethical form of advertising (Karrh et al., 2001; Ong, 2004). Moreover, sponsored content is considered to be far less irritating, somewhat more informative and more amusing compared to traditional television advertising (Neijens & Smit, 2003).

To our knowledge, only one study has yet investigated viewers' opinions about the regulation of sponsored content in TV programs. Tewksbury, Jensen and Coe (2011) found that television viewers do support the use of labels that identify externally provided news content in sponsored television news (i.e., video news releases). Furthermore, several studies that focused on brand placement in movies demonstrated that, in general, viewers appear to be quite negative about regulating sponsored content in movies (Gupta & Gould, 1997; Gupta, Balasubramanian, & Klassen, 2000; Karrh et al., 2001). For instance, a survey among 3,340 people demonstrated that the majority of respondents disagree that the practice of placing brands within films by advertisers should be banned and that the government should regulate the use of brand name products in movies (Sung, de Gregorio, & Jung, 2009). In line with this study, Gupta et al. (2000) found that the majority did not think that brand placement in movies should be banned. Additionally, Newell et al. (2009) found that consumers were highly cynical about government regulation of advertising and nearly as cynical of the ability of marketers to self-regulate.

In sum, prior studies demonstrated that viewers do not mind sponsored content in TV programs. Additionally, although previous studies showed that viewers did not think the government should regulate sponsored content in movies, but do support disclosures in sponsored television news, viewers' opinion about disclosure in regular TV programs remains unclear. To examine whether television viewers appreciate sponsored content and the recently obligated sponsorship disclosures, this study therefore poses the following research questions:

RQ1: How do television viewers appreciate sponsored content in TV programs?

RQ2: How do television viewers appreciate sponsorship disclosure in TV programs?

In addition, EU regulations specifically mention that brand placement should be identified at the start and the end of the program and when the program resumes after an advertising break (Audiovisual Media Services Directive, 2010). To examine whether viewers' appreciation differs between these timings, we also pose a third research question:

RQ3: Which disclosure timing is considered appropriate by viewers?

3 Effect of sponsorship disclosure on processing

As sponsorship disclosure is a fairly recent development, not much research has been done to examine its effects. The few studies that did investigate the effects of sponsorship disclosures on television demonstrated that disclosure can influence brand responses, such as brand memory and attitude (Boerman, Van Reijmersdal, & Neijens, 2012; Campbell, Mohr, & Verlegh, 2007; Van Reijmersdal & Tutaj, 2010) and can activate different levels of persuasion knowledge (Boerman et al., 2012). Persuasion knowledge comprises a general understanding of persuasion and knowing how to cope with persuasive attempts (Friestad & Wright, 1994). Research showed that sponsorship disclosure can help viewers recognize sponsored content as advertising and can make them generate critical feelings toward the sponsored content (Boerman et al., 2012). Especially the effect on the recognition of advertising is of importance, as this is the main goal of the implementation of sponsorship disclosure. Moreover, knowing the intent of a persuasive message can influence individuals' processing of information (McGuire & Papageorgis, 1962; Petty & Cacioppo, 1977; Wentzel, Tomczak, & Herrmann, 2010). According to the reactance theory (Brehm, 1966), people usually do not want to be manipulated and want to maintain their freedom. When viewers are aware of the persuasive intent of a message, and hence persuasion knowledge is activated, they may therefore use this knowledge to process the message differently and possibly more critically. Therefore, this study examines to what extent sponsorship disclosure influences viewers' processing of a television program. We do this by posing the following research questions:

RQ4: Does sponsorship disclosure affect the topic of viewers' processing during the program?

Prior studies showed that sponsorship disclosure can change viewers' opinion of the advertised brand (Boerman et al., 2012; Campbell et al., 2007). Hence, sponsorship disclosure may also influence the way the brand is processed. Therefore, we also test whether people think about the brand or product in a positive or negative manner, thus assessing the valence of processing:

RQ5: What is effect of sponsorship disclosure on the valence of viewers' brand related processing?

4 Method

4.1 *Participants, procedure and stimulus*

We conducted an experiment (N = 209 students, $M_{\text{age}} = 22.21$, 77% female) in which participants were invited into the lab of the university. At arrival, participants were invited to take place in a cubicle, where they were asked to watch an edited episode of the television program *MTV Was Here*. After watching the program, participants were asked to fill out an online questionnaire. The experiment took about half an hour and the participants received eight Euros for their participation.

The program consisted of three items. In the first item, the presenter visits a dance improvisation festival, and the third item was an interview with a famous Dutch DJ. The second item incorporated the sponsored content as it discussed a new brand of sneakers, Alive Shoes, which links shoes with social networking. The whole program lasted about 14 minutes, and the sponsored item was four minutes and 20 seconds long. The control group was exposed to the program without a disclosure. The other participants were exposed to the program that also included the disclosure "This program contains advertising by Alive Shoes." This disclosure was displayed at the upper right corner of the screen and was clearly readable. It mentioned both the brand and the fact that the brand is advertising in the program. This is in accordance with new regulation proposals in the United States (Cain, 2011).

4.2 *Measures*

4.2.1 *Appreciation of sponsored content*

Participants' appreciation of sponsored content was measured by asking them to give their opinion, in general, about brands in TV programs with seven 7-point semantic-differential scales: bad/good, dislike/like, unpleasant/pleasant, unfavourable/favourable, negative/positive, unfair/fair, insincere/sincere (Bruner,

James, & Hensel, 2001; Muehling, 1987; $EV = 4.84$, $R^2 = 69.08\%$, Cronbach's $\alpha = .92$).

4.2.2 Appreciation of sponsorship disclosure

Participants' opinion about sponsorship disclosure in TV programs was measured using seven 7-point semantic-differential scales: bad/good, dislike/like, unpleasant/pleasant, unfavourable/favourable, negative/positive, patronizing/not patronizing, redundant/necessary (Bruner et al., 2001; Muehling, 1987; $EV = 4.35$, $R^2 = 62.20\%$, Cronbach's $\alpha = .89$).

4.2.3 Appreciation of sponsorship disclosure timings

Participants were informed that sponsorship disclosures can be shown at different moments within a TV program. Subsequently, their opinion was measured for each timing with three 7-point semantic-differential scales: bad/good, unpleasant/pleasant, redundant/necessary (Bruner et al., 2001). This resulted in three measures: Appreciation of sponsorship disclosure at the beginning of the program ($EV = 2.20$, $R^2 = 73.46\%$, Cronbach's $\alpha = .82$), during the program ($EV = 2.55$, $R^2 = 84.93\%$, Cronbach's $\alpha = .91$), and at the end of the program ($EV = 2.33$, $R^2 = 77.55\%$, Cronbach's $\alpha = .85$).

4.2.4 Control variables

To make sure the effects are not confounded by other differences between the groups, we measured some control variables. We measured program familiarity by asking participants whether they knew the television program *MTV Was Here* ($0 = no$, $1 = yes$). We also asked viewers' whether they were familiar with the brand before the study, and whether they owned the shoes ($0 = no$, $1 = yes$).

Participants' program involvement was measured with the ten 7-point semantic differential scales from Zaichkowsky's (1994) personal involvement inventory. The mean score of the ten items is used as a measure of program involvement ($EV = 5.22$; $R^2 = 52.23$; Cronbach's $\alpha = .90$, $M = 4.39$, $SD = 0.87$).

Based on a scale by Van Reijmersdal, Neijens and Smit (2007) product interest was measured by asking participants to indicate to what extent they agreed with the items ($1 = strongly disagree$, $7 = strongly agree$): "I like buying shoes," "I like to watch something about shoes on television" and "I am interested in shoes" ($EV = 2.34$; $R^2 = 77.93$; Cronbach's $\alpha = .86$, $M = 4.81$, $SD = 1.52$).

Furthermore, participants were asked whether they recalled a disclosure for advertising in the episode of *MTV Was Here* ($0 = no$, $1 = yes$).

4.3 Coding thoughts

Viewers' processing was measured by coding their thoughts. As part of the questionnaire, participants were asked to write down what they were thinking about while watching the program. They were asked to write down all thoughts that were related to the program, and as many thoughts as possible, with a minimum number of 100 characters and with no time constraints. All answers were broken down into individual units (or "unitized", Cacioppo & Petty, 1981) by one of the authors. Each unit has one subject, even when this meant the thought consisted of one word only (e.g., "I liked the shoes" or "Shoes"). This resulted in a total of 1467 independent thoughts, with an average of 7 thoughts per participant ($SD = 3.90$, $Min = 2$, $Max = 23$). The individual units were coded by two trained coders, who were blind to the experimental conditions of the subjects and hypotheses, with 10% overlap. Thoughts were coded for topic (e.g., brand, product, advertising, disclosure and/or program related) and valence (positive, negative or neutral). Intercoder reliability appeared to be good (Mean Krippendorff's $\alpha = .93$, range $.85 - 1.00$) (Krippendorff, 2003). Doubts or disagreements were resolved by discussion and final judgment was made by one of the authors.

5 Results

5.1 Appreciation of sponsored content and sponsorship disclosure

Table 1 shows the mean appreciation of sponsored content and sponsorship disclosure. With regard to RQ1, on average, consumers' appreciation of brands in TV programs in general is quite neutral, as the mean is near the midpoint of the scale ($M = 3.74$, $SD = 0.99$). Only 11% of the participants appreciated sponsored content (scores 5 to 7), whereas 21% was very negative (scores 1 to 3) about brands in TV programs.

Regarding RQ2, overall, viewers were positive about sponsorship disclosure in TV programs ($M = 4.74$, $SD = 1.07$). Almost half of the participants (42%) appreciated sponsorship disclosure (scores 5 to 7). Two-thirds of the participants (66%) thought sponsorship disclosure was necessary (scores 5 to 7).

With regard to the timing of the disclosure in the TV program (RQ3), a disclosure at the beginning of the program was most appreciated ($M = 4.93$, $SD = 1.23$). On average, participants were less positive about a disclosure during the program ($M = 3.63$, $SD = 1.70$) or at the end of the program ($M = 3.79$, $SD = 1.61$). A within-subjects (GLM repeated measures) test showed that this difference in appreciation between disclosure timings is significant, $F(1.91, 396.24) = 65.24$, $p = .000$, $\eta^2 = .24$. Pairwise comparisons (LSD) showed that participants significantly preferred a disclosure showed at the beginning of the program, compared to a disclosure during or at the end of the program ($p < .001$). Partici-

pants' opinions about a disclosure during the program or at the end of the program did not differ significantly ($p = .233$).

Table 1: Mean appreciation of sponsored content and sponsorship disclosure

	<i>M (SD)</i>
Appreciation of sponsored content	3.74 (0.99)
Appreciation of sponsorship disclosure	4.74 (1.07)
Appreciation of sponsorship disclosure at beginning of program	4.93 (1.23)
Appreciation of sponsorship disclosure during program	3.63 (1.70)
Appreciation of sponsorship disclosure at end of program	3.79 (1.61)

Note. All scores based on seven-point scales, $N = 209$.

5.2 *Effects of sponsorship disclosure on processing*

Fifty-two per cent of the participants ($n = 93$) that were exposed to a disclosure did not recall the disclosure. Because we focus on the effects of a sponsorship disclosure on processing, the participants that did not recall the disclosure were excluded from the analyses, leaving a sample of 116 participants (control $n = 30$, disclosure recalled $n = 86$). The two groups did not differ with respect to sex, age, program familiarity, product interest, and program involvement (all p 's $> .05$). In addition, since 96% of the participants were not familiar with Alive Shoes before participating in the study, and no participant owned the shoes, the program and/or the disclosure are most likely the main antecedents of the (valence of) brand related thoughts.

5.2.1 Topic of thoughts

Table 2 shows the mean number of thoughts and percentage of thoughts about a specific topic (relative to the total number of thoughts) for both groups. An ANOVA showed there is no significant difference in the number of thoughts for participants who were exposed to a sponsorship disclosure and participants who were not, $F(1, 113) = 1.58$, $p = .212$, $\eta^2 = .01$.

To answer RQ4 the topic of thoughts was divided into four categories, and we conducted a MANOVA comparing the two groups for each topic. This showed there was a significant effect of sponsorship disclosure on participants' topic of thought while watching the program, Wilk's Lambda = .91, $F(4, 110) = 2.63$, $p = .038$, $\eta^2 = .09$. Separate analyses showed a significant difference in the

percentage of thoughts about the product, the product category or the brand, $F(1, 113) = 4.61, p = .034, \eta^2 = .04$. Participants who were exposed to a sponsorship disclosure and recalled this disclosure indicated less thoughts about the product and brand (28%), compared to participants that were not exposed to a disclosure (38%). In addition, participants only indicated to have thought about advertising when they were exposed to a disclosure and recalled this, $F(1, 113) = 2.90, p = .092, \eta^2 = .03$. Participants who were not exposed to a disclosure did not mention any thoughts about advertising. As the percentage of thoughts about advertising was quite low, this difference was only marginally significant. There was no significant difference between the groups in the percentage of thoughts about sponsorship disclosure, $F(1, 113) = .35, p = .555, \eta^2 = .00$, and program-related thoughts (i.e., thoughts about the program as a whole, program content other than the product or brand, the presenters and people in the program), $F(1, 113) = .87, p = .353, \eta^2 = .00$.

Table 2: Comparison of number of thoughts and topic of thoughts between no disclosure group and disclosure group

	<i>No disclosure</i>	<i>Disclosure (recalled)</i>
Mean number of thoughts	6.37 (3.53)	7.44 (4.16)
Percentage of thoughts about product, product category and brand	37.96 (24.17) ^a	28.37 (19.85) ^b
Percentage of thoughts about advertising	0.00 (0.00) ^x	3.64 (11.69) ^y
Percentage of thoughts about disclosure	0.00 (0.00)	0.20 (1.81)
Percentage of thoughts about program	65.48 (27.01)	69.76 (19.41)

Note. Mean scores (with standard deviations between parentheses); ^{a,b} mean scores in the same row with different superscripts differ significantly at $p < .05$; ^{x,y} mean scores in the same row with different superscripts differ significantly at $p < .10$.

5.2.2 Valence of brand related thoughts

Table 3 shows the results regarding the valence of the thoughts that participants had about the product or brand that was advertising in the program (RQ5). The percentages are relative to all thoughts. Results show that participants who were exposed to a disclosure and recalled it, had significantly less positive thoughts about the brand or product (8%), compared to participants who were not exposed to a disclosure (15%), $F(1, 114) = 6.79, p = .010, \eta^2 = .06$. We found no differences in the percentage of negative, $F(1, 114) = 1.48, p = .226, \eta^2 = .01$,

and neutral thoughts about the product or brand, $F(1, 114) = 0.00$, $p = .955$, $\eta^2 = .00$.

Table 3: Valence of brand related thoughts relative to all thoughts

	No disclosure	Disclosure (recalled)
Percentage of positive brand related thoughts	15.01 (16.24) ^a	8.01 (11.21) ^b
Percentage of negative brand related thoughts	9.29 (14.40)	6.18 (11.14)
Percentage of neutral brand related thoughts	13.66 (17.62)	13.85 (15.46)

Note. Mean scores (with standard deviations between parentheses); ^{a,b} mean scores in the same row with different superscripts differ significantly at $p < .05$.

6 Conclusion and Discussion

This study had two aims 1) to investigate viewers' appreciation of sponsored content and sponsorship disclosure in TV programs, and 2) to examine the effects of sponsorship disclosure on viewers' information processing. In accordance with prior studies (e.g., Neijens & Smit, 2003; Newell et al., 2009; Sung et al., 2009), our results demonstrate that viewers are on average quite neutral about sponsored content in TV programs. Moreover, viewers appreciate sponsorship disclosure. This means that although viewers do not appear to mind sponsored content, they do appreciate a disclosure that informs them about product placement in a program. Additionally, when sponsored content is disclosed in a program, viewers prefer this disclosure to be at the beginning of the program, compared to during the program or at the end.

With respect to the second aim, we found that sponsorship disclosure does influence viewers' information processing. Viewers only indicated to have thought about advertising while watching the program when they were exposed to a sponsorship disclosure. Viewers who were not exposed to a sponsorship disclosure did not report to have thought about advertising. This indicates that sponsorship disclosure does make the viewer think about this advertising. This is in line with prior disclosure research, which demonstrated that sponsorship disclosure increases the recognition of sponsored content as advertising (Boerman et al., 2012).

Furthermore, viewers who were exposed to a disclosure and recalled seeing it, reported less thoughts about the brand and/or the product. This finding indicates that viewers may intentionally avoid processing the brand or product after the sponsorship disclosure, because the disclosure emphasized that is advertis-

ing. Hence this avoidance could be a form of reactance. This reactance is emphasized by the finding that viewers who saw a sponsorship disclosure also have less positive brand related thoughts, compared to viewers with no sponsorship disclosure. Hence, after a disclosure, viewers think less about the brand and when they think about it, it is positive less often.

An alternative explanation for this result could be that there were other differences between the two groups. We created the two groups by leaving out the participants that did not recall the disclosure. Consequently, the group that was not exposed to a disclosure and the group that was and recalled it, may differ in the way they watched the program. For instance, the viewers who did recall the disclosure may have been the viewers who watched the program very attentively, and/or are rather critical of advertising. It is possible that rather than increased reactance as a consequence of the disclosure, these factors (increased attention and/or a more critical attitude) have caused the processing differences between the groups. Further research is necessary to get more insight into these alternative explanations.

Remarkably, viewers reported practically no thoughts about the disclosure, despite its novelty. We would expect viewers to notice the sponsorship disclosure, because it is new to them, and elaborate on it while watching the program. However, very few viewers did so. Together with the low recall of the disclosure, it is therefore questionable whether this form of disclosure actually is an effective instrument. Further research is needed to test whether and when people notice sponsorship disclosures and how this is related to its effects.

A limitation of this study was that we used a sample of communication science students. As these students are taught about advertising, we need to be careful generalizing these results. However, our results do correspond to the findings of surveys with representative, non-student samples such as Neijens and Smit (2003) and Sung et al. (2009). In accordance with our results, Neijens and Smit (2003) and Sung et al. (2009) also found that consumers are, overall, positively disposed toward sponsored content, with a strong tendency towards neutrality. However, Sung et al. (2009) also demonstrate that respondents had somewhat negative perceptions of general government regulation of sponsored content or banning sponsored content in movies (Sung et al., 2009). Because TV programs are different from movies, further research is needed to investigate whether this difference in outcomes is due to our sample, or because consumers do appreciate disclosures in TV programs and not in movies.

In sum, this study shows that although viewers do not mind sponsored content, they do appreciate sponsorship disclosure, and they prefer a disclosure at the beginning of the program. Furthermore, sponsorship disclosure changes viewers' processing of program content, as it makes them think about advertising, and makes them think less positively about the brand. These findings pro-

vide important theoretical insight into how sponsorship disclosure can change information processing. By informing the viewer about sponsored content, a disclosure changes the topics the viewer processes while watching the program and may even evoke reactance against the sponsored content and brand. These findings are relevant to regulators, as they show that viewers do appreciate the new EU regulations, and that its implementation changes the processing of the sponsored content.

7 References

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When Self-Referencing Cues are Harmful: The Effects of “For You” Statements in Advertisements on Product Attitudes

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1 Introduction

Although “for you” statements are frequently included in advertisements, little is known about whether and how they affect attitudes toward the advertised product. We report findings of prior research and present our results of three experiments that tested their effect. We found that “for you” statements are ineffective in the case of popular brands and strong arguments, respectively. However, the presence of these statements impairs attitudes when used in ads for less popular brands or if they are combined with weak arguments.

“For you” statements address the targeted consumer personally (e.g., Escalas, 2007, p. 424). If advertisements contain statements such as “The product was developed with you in mind” or “This should be of interest for you” a “for you” statement is used. In Figure 1, we show some examples of this type of information. In an ad for a ketchup, “deliciously yours!” is included. In a historical ad promoting an automotive, “The car designed with you in mind” was inserted. An optician uses “Cut to fit your face.”

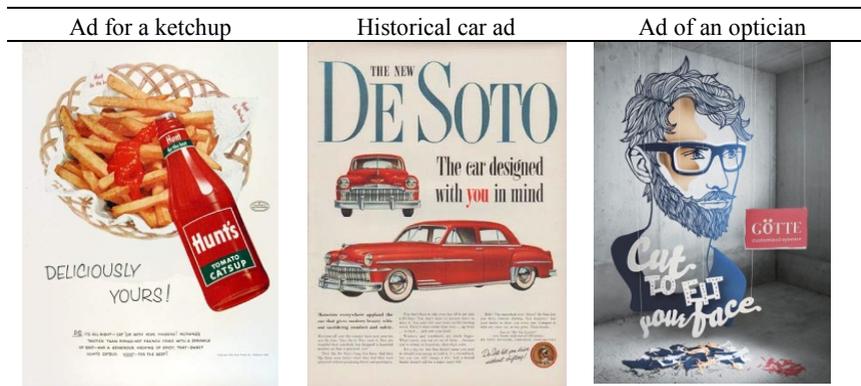


Figure 1: Advertisements containing “for you” statements

This kind of cues could evoke high perceptions of being targeted that cause a cognitive process of self-referencing (Debevec and Iyer, 1988; Burnkrant and

Unnava, 1989 and 1995; Sujan, Bettman and Baumgartner, 1993; Meyers-Levy and Peracchio, 1996).

This paper deals with the questions about whether and under which conditions attitudes towards an advertised product are affected by “for you” statements. We consider brand popularity and argument strength and test the effect of the presence of “for you” statements under these conditions.

2 Previous research

We identified four studies of authors who already examined the effect of the presence of “for you” statements contained in advertisements on product attitudes (Debevec and Romeo, 1992; Bosmans et al., 2001; Escalas, 2007; Ahn and Bailenson, 2011). In three of these experiments, neither the strength of arguments nor the popularity of the brands had been manipulated additionally. In the experiment of Escalas (2007), two conditions of argument strength had been considered; unfortunately, she did not manipulate argument strength consequently as the product attitudes did not differ in the “for you” statement-absent condition. In Table 1, we summarize the details of these experiments. In sum, the authors did not find a systematic effect. Probably, this finding was observed because products were considered which were rated as neutral, i.e., neither as positive nor as negative products on the underlying scales.

Table 1: Prior research about the effect of “for you” statements on product attitudes

Source	Test stimuli, experimental design, “for you” statement, sample, result	Illustration of the effect						
Debevec and Romeo, 1992, p. 96	<ul style="list-style-type: none"> • Advertisement for a soft drink • 2 conditions (“for you” statement: present vs. absent)^{*)} • “Twist will fit your active life style” • Approx. 53 students • Effect not significant ($p > .05$) 	<p>The graph shows a line connecting two data points. The y-axis is labeled 'Product attitude' and has a scale from 1 to 7. The x-axis has two categories: '„For you“ statement absent' and '„For you“ statement present'. The data points are 4.3 for the absent condition and 4.8 for the present condition.</p> <table border="1"> <thead> <tr> <th>Condition</th> <th>Product attitude score</th> </tr> </thead> <tbody> <tr> <td>„For you“ statement absent</td> <td>4.3</td> </tr> <tr> <td>„For you“ statement present</td> <td>4.8</td> </tr> </tbody> </table>	Condition	Product attitude score	„For you“ statement absent	4.3	„For you“ statement present	4.8
Condition	Product attitude score							
„For you“ statement absent	4.3							
„For you“ statement present	4.8							

^{*)}There was an additional manipulation which is not relevant for this overview.

Table 1: Prior research about the effect of “for you” statements on product attitudes - continued

Source	Test stimuli, experimental design, “for you” statement, sample, result	Illustration of the effect									
Escalas, 2007, p. 425	<ul style="list-style-type: none"> Advertisement for running shoes 4 conditions: 2 (“for you” statement: present vs. absent) × 2 (arguments: strong vs. weak)*) “Designed with you in mind” Approx. 168 students Effect unclear because the “strong” arguments did not cause higher evaluations than the “weak” arguments in the “for you” statement-absent condition ($F < 1$) 	<table border="1"> <caption>Brand evaluation data for Escalas (2007)</caption> <thead> <tr> <th>Argument Strength</th> <th>„For you“ statement absent</th> <th>„For you“ statement present</th> </tr> </thead> <tbody> <tr> <td>Strong arguments</td> <td>40.6</td> <td>51.9</td> </tr> <tr> <td>Weak arguments</td> <td>38.8</td> <td>39.2</td> </tr> </tbody> </table>	Argument Strength	„For you“ statement absent	„For you“ statement present	Strong arguments	40.6	51.9	Weak arguments	38.8	39.2
Argument Strength	„For you“ statement absent	„For you“ statement present									
Strong arguments	40.6	51.9									
Weak arguments	38.8	39.2									
Ahn and Bailenson, 2011, p. 98	<ul style="list-style-type: none"> Advertisement for a soft drink 2 conditions (“for you” statement: present vs. absent)*) “Just what you need for a perfect end to a perfect day” 80 students Effect obviously not significant 	<table border="1"> <caption>Brand attitude data for Ahn and Bailenson (2011)</caption> <thead> <tr> <th>„For you“ statement</th> <th>Brand attitude</th> </tr> </thead> <tbody> <tr> <td>absent</td> <td>2.51</td> </tr> <tr> <td>present</td> <td>2.41</td> </tr> </tbody> </table>	„For you“ statement	Brand attitude	absent	2.51	present	2.41			
„For you“ statement	Brand attitude										
absent	2.51										
present	2.41										
Bosmans et al., 2001, p. 119	<ul style="list-style-type: none"> Advertisement for an orange juice 4 conditions: 2 (“for you” statement: present vs. absent) × 2 (mood: positive vs. negative) “Citrus orange and your breakfast is complete” 83 students In the positive-mood condition, effect obviously not significant; overall effect of the “for you” statement obviously positive because its main effect is significant ($p < .05$) 	<table border="1"> <caption>Product evaluation data for Bosmans et al. (2001)</caption> <thead> <tr> <th>Mood</th> <th>„For you“ statement absent</th> <th>„For you“ statement present</th> </tr> </thead> <tbody> <tr> <td>Positive mood</td> <td>2.40</td> <td>2.99</td> </tr> <tr> <td>Negative mood</td> <td>3.13</td> <td>3.68</td> </tr> </tbody> </table>	Mood	„For you“ statement absent	„For you“ statement present	Positive mood	2.40	2.99	Negative mood	3.13	3.68
Mood	„For you“ statement absent	„For you“ statement present									
Positive mood	2.40	2.99									
Negative mood	3.13	3.68									

*) There was an additional manipulation which is not relevant for this overview.

3 Theoretical considerations

We assume that the effect of a “for you” statement depends on brand popularity and argument strength. First, the advertised product could be a desirable object due to a popular brand or strong arguments indicating product superiority compared to competitors’ products that are available. Then, the presence of a “for you” statement does not contradict the consumer’s self-esteem and self-related thoughts such as “This product meets my needs” could be evoked. As a consequence, the “for you” statement could additionally confirm the consumer’s opinion that the advertised product is a good product. However, the presence of a “for you” statement is unlikely to increase product evaluations. We expect:

H1: If the brand is popular or if the arguments are strong, “for you” statements do not affect product attitudes.

Second, the advertised product could be a less desirable object because the brand is less popular or weak arguments are contained in the advertisement. In this condition, a spontaneous disagreement to “for you” statements is likely to be elicited because stating that an inferior product is “for you” might offend the consumer’s self-esteem. The consumer might develop counter-arguments against the product such as “The advertiser is mistaken. My true needs are ...” This effect might reduce product evaluations. We conclude:

H2: If the brand is less popular or if the arguments are weak, “for you” statements impair product attitudes.

In Figure 2 we visualize our assumptions.

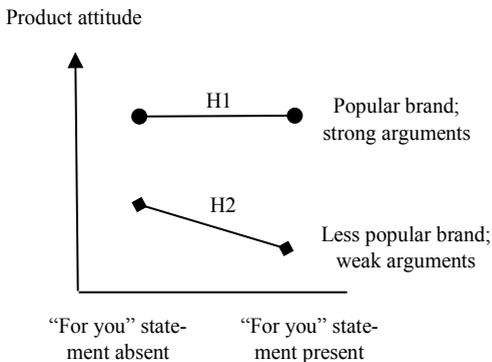


Figure 2: The hypotheses

We conducted three experiments to test these assumptions.

4 Experiment 1

In the first experiment, we test the effect of including a “for you” statement in advertisements for highly popular brands.

4.1 *Experimental design*

We used a between subjects design with two conditions (“for you” statement: present vs. absent) and replicated the experiment for four brands from different product categories (washing machine, aluminum foil, salt, and beer).

4.2 *Pretest to select the brands*

The brands were selected on the basis of the results of a pre-test. 20 students rated brands on seven-point scales (“high quality”, “likeable,” and “would buy”; Cronbach’s $\alpha = .820$). We chose a brand from each category which received an average rating higher than 5 on a seven-point scale (the brand names are as follows: Siemens, Toppits, Bad Reichenhaller, and Augustiner).

4.3 *Test stimuli*

For each brand, we created fictitious ad versions. The ads contained a landscape which emphasized the product’s benefit or origin and showed a picture of the product. The versions differed regarding the presence of a “for you” statement. In the case of the washing machine, we used “exactly yours.” In the other cases, “for you” was inserted. The ad versions which we used in this study are shown in Figure 3.

4.4 *Sample, procedure, and measures*

We exposed the ad versions to a student sample. The students were aged between 18 and 34 ($M_{\text{age}} = 24.10$ years). The data were collected at a university located in the South of Germany in 2012 with an online tool. The attitudes toward the advertised products were assessed by the items “attractive,” “interesting,” and “appealing” on seven-point scales (Cronbach’s $\alpha = .886$).

4.5 *Results*

The results of this experiment which are listed in Table 2 indicate that there is no effect of using a “for you” statement in advertisements. For each of the products, we neither found a positive nor a negative effect. We collapsed the data across the products and show the resulting null effect in Figure 4.

Product	“For you” statement present	“For you” statement absent
Washing machine	 <p>Siemens SG 525 die schönste Art zu waschen</p> <p><i>Für Dich!</i></p> <p>Geringer Stromverbrauch. Saubere Wäsche bei niedrigen Temperaturen</p> <p>SIEMENS</p>	 <p>Siemens SG 525 die schönste Art zu waschen</p> <p>Geringer Stromverbrauch. Saubere Wäsche bei niedrigen Temperaturen</p> <p>SIEMENS</p>
Aluminum foil	 <p>Schützt Lebensmittel auch bei kältesten Temperaturen vor Gefrierbrand!</p> <p><i>Für Dich!</i></p> <p>Alu-Folie</p> <p>Extra reißfest dank Kraft-Waben Hygienisch für die Verzehr- & Verpackung</p> <p>toppitt</p>	 <p>Schützt Lebensmittel auch bei kältesten Temperaturen vor Gefrierbrand!</p> <p>Alu-Folie</p> <p>Extra reißfest dank Kraft-Waben Hygienisch für die Verzehr- & Verpackung</p> <p>toppitt</p>
Salt	 <p><i>Für Dich!</i></p> <p>Marken Salz</p> <p>...schönend verarbeitet, für einen vollen Geschmack</p>	 <p>Marken Salz</p> <p>...schönend verarbeitet, für einen vollen Geschmack</p>
Beer	 <p>Frischer Biergenuss von Augustiner...</p> <p><i>Für dich!</i></p> <p>Augustiner Bräu München gegründet 1525</p>	 <p>Frischer Biergenuss von Augustiner...</p> <p>Augustiner Bräu München gegründet 1525</p>

Figure 3: Ad versions used in Experiment 1

Table 2: Attitude toward the advertised products (Experiment 1)

	“For you” statement present	“For you” statement absent	t-value
Washing machine	5.14 (N=32)	4.97 (N=32)	$t = .583$ n.s.
Aluminum foil	4.63 (N=32)	4.90 (N=32)	$t = -.899$ n.s.
Salt	4.98 (N=32)	5.19 (N=32)	$t = -.782$ n.s.
Beer	5.54 (N=21)	5.47 (N=27)	$t = .202$ n.s.
Overall	5.03 (N=117)	5.12 (N=123)	$t = -.603$ n.s.

Scale ranges from 1 = negative to 7 = positive.

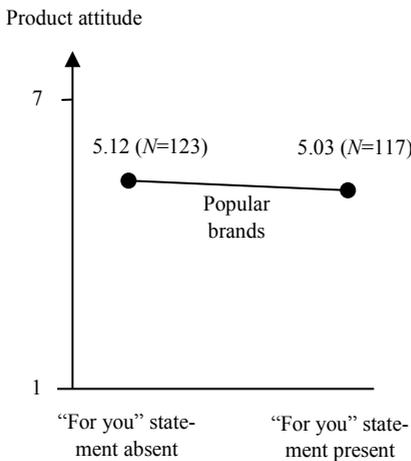


Figure 4: Effect of “for you” statements on product attitudes (Experiment 1)

This finding conforms to our assumption that the attitudes towards products with a favorably evaluated brand name do not increase if a “for you” statement is included in the advertisements.

5 Experiment 2

In the second experiment, we analyze whether the effect of “for you” statements is also absent if less favorably evaluated brands are considered. Thus, we selected pairs of brands for some product categories, i.e., a popular and a less popular brand, and tested whether the effect of “for you” statements depends on brand popularity.

5.1 *Experimental design*

The experiment is based on a 2 (“for you” statement: present vs. absent) \times 2 (brand popularity: high vs. low) between subjects design. This design was replicated for three product categories (mobile phone, automotive, and running shoes) using a within-subjects design.

5.2 *Pretest to select the brands*

From each of the categories, we used a brand which is highly popular and a brand with a lower popularity. To select these brands, we conducted a pre-test. In total, 30 students rated several brand names from each category on seven-point scales without being exposed to additional stimulus material. The items “attractive,” “appealing,” “good,” and “high quality” were used to assess the attitude toward the brands (Cronbach’s alpha = .972). On the basis of these results, we selected Audi, Nike, and Samsung as popular brands and Fiat, Victory, and Motorola as less popular brands. The pre-test results which are summarized in Table 3 show that the attitudes toward the brands differ significantly in each category. Moreover, the brands which are liked to a higher extent are rated rather positively on the scale whereas the brands which are liked to a lower extent are rated below the center of the scale, i.e., the scale value 4.

Table 3: Attitude toward the brands (pretest results)

<i>Automotive</i>		<i>Running shoes</i>		<i>Mobile phone</i>	
<i>Audi</i>	<i>Fiat</i>	<i>Nike</i>	<i>Victory</i>	<i>Samsung</i>	<i>Motorola</i>
5.79	3.13	5.64	3.19	5.84	3.75
$t = 7.770, p < .001$		$t = 7.491, p < .001$		$t = 6.837, p < .001$	

Scale ranges from 1 = negative to 7 = positive.

5.3 *Test stimuli*

In the next step, we created ads promoting currently existing product versions of the brands. In one version, we inserted a “for you” statement; in another version, we did not include this piece of information. As the ads are in German language, we translate the “for you” statements. In the case of the cars, we used the statement “designed with you in mind.” In the case of the mobile phones, “fits your needs perfectly” was inserted. In the case of the running shoes, the statement “fits perfectly to you” was included. By doing so, we generated four ad versions for each product category. The ads are shown in Figure 5.

	Cars	Mobile phones	Running shoes
Popular brand & "For you" statement present	<p>Vorsprung durch Technik Audi</p>  <p>Der Audi A2. Bei diesem Modell haben wir speziell an Sie gedacht!</p> <ul style="list-style-type: none"> - in neuem Design - getönte Scheiben - inklusive Sitzheizung  	<p>SAMSUNG GALAXY S2 designed for humans</p> <p>Das Samsung Galaxy S2. Auf Ihre Ansprüche perfekt zugeschnitten!</p> <ul style="list-style-type: none"> - 8 Megapixel Kamera - Display Schutzfolie - TouchScreen 	<p>Laufschuhe von Nike. Passen perfekt zu Dir!</p> <ul style="list-style-type: none"> - für Anfänger geeignet - Obermaterial Textil - für Damen und Herren <p>JUST DO IT</p> 
Popular brand & "For you" statement absent	<p>Vorsprung durch Technik Audi</p>  <p>Der Audi A2.</p> <ul style="list-style-type: none"> - in neuem Design - getönte Scheiben - inklusive Sitzheizung  	<p>SAMSUNG GALAXY S2 designed for humans</p> <p>Das Samsung Galaxy S2.</p> <ul style="list-style-type: none"> - 8 Megapixel Kamera - Display Schutzfolie - TouchScreen 	<p>Laufschuhe von Nike. JUST DO IT</p> <ul style="list-style-type: none"> - für Anfänger geeignet - Obermaterial Textil - für Damen und Herren 
Less popular brand & "For you" statement present	<p>Alles Fiat. Alles gut.</p>  <p>Der Fiat Punto. Bei diesem Modell haben wir speziell an Sie gedacht!</p> <ul style="list-style-type: none"> - in neuem Design - getönte Scheiben - inklusive Sitzheizung  	<p>MOTOROLA RAZR</p> <p>Das Motorola Razzr. Auf Ihre Ansprüche perfekt zugeschnitten!</p> <ul style="list-style-type: none"> - 8 Megapixel Kamera - Display Schutzfolie - TouchScreen 	<p>Laufschuhe von Deichmann. Passen perfekt zu Dir!</p> <ul style="list-style-type: none"> - für Anfänger geeignet - Obermaterial Textil - für Damen und Herren <p>victory</p> 
Less popular brand & "For you" statement absent	<p>Alles Fiat. Alles gut.</p>  <p>Der Fiat Punto.</p> <ul style="list-style-type: none"> - in neuem Design - getönte Scheiben - inklusive Sitzheizung  	<p>MOTOROLA RAZR</p> <p>Das Motorola Razzr.</p> <ul style="list-style-type: none"> - 8 Megapixel Kamera - Display Schutzfolie - TouchScreen 	<p>Laufschuhe von Deichmann. victory</p> <ul style="list-style-type: none"> - für Anfänger geeignet - Obermaterial Textil - für Damen und Herren 

Figure 5: Ad versions used in Experiment 2

5.4 Sample, procedure, and measures

We exposed female students aged between 19 and 29 ($M_{\text{age}} = 23.67$ years) to the ad versions. The sample was split into four sub-samples. The participants belonging to the first sub-sample saw each of the three ad versions of the “popular brand & ‘for you’ statement present” condition. The second sub-sample was exposed to the ad versions which belong to the “less popular brand & ‘for you’ statement present” condition. The third and the fourth sub-sample were exposed to the two remaining ad versions. Thus, each respondent rated an automotive, a mobile phone, and a pair of running shoes. The data were collected at a university located in the South of Germany in 2012 by using an online tool. The attitudes toward the advertised product were assessed by the items “attractive,” “interesting,” “appealing,” and “good” on seven-point scales (Cronbach’s alpha = .963). Additionally, we asked the participants to indicate the degree to which the ad had elicited self-related thoughts. The participants agreed or disagreed to “This ad seems to be written with me in mind,” “The advertiser targets me,” and “The advertiser made that advertisement to appeal to people like me” on seven-point scales (Cronbach’s alpha = .967). The statements were adopted from Burnkrant and Unnava (1989, 1995), Debevec and Romeo (1992), and Escalas (2007). It should be noted that we also asked the respondents to indicate their interest in the product categories on two seven-point scales. The sub-samples did not significantly differ with regard to this control variable.

5.5 Results

Because the sample sizes are rather small, we collapsed the data across the categories for each test participant and report the aggregate findings in Figure 6.

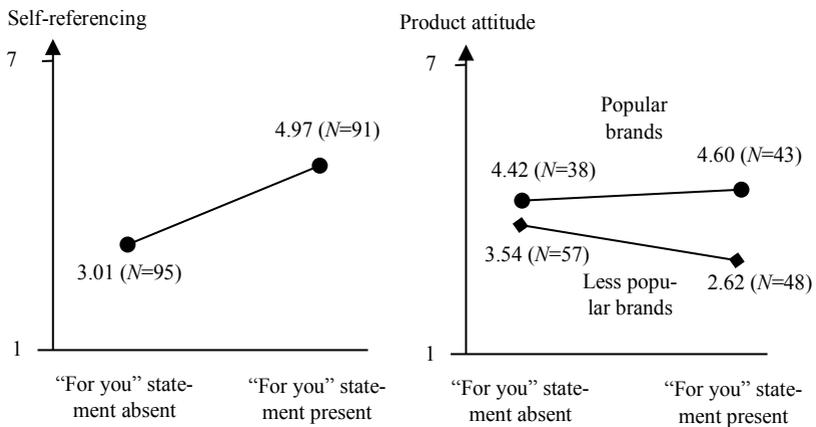


Figure 6: Effect of “for you” statements on self-referencing and product attitudes (Experiment 2)

First, we checked whether the use of the “for you” statement increased the degree of self-referencing. Our findings show that the respondents agreed more strongly to the statements which aim at measuring this construct in the “for you”-statement-present conditions (self-referencing: $M_{\text{“for you” statement absent}} = 3.01$, $M_{\text{“for you” statement present}} = 4.97$, $t = 8.204$, $p < .001$). Second, we tested whether this information affects the attitude toward the product in the popular-brand condition and found no effect (product attitude in the case of popular brands: $M_{\text{“for you” statement absent}} = 4.42$, $M_{\text{“for you” statement present}} = 4.60$, $t = .844$, n.s.). Finally, we tested whether this information has a negative effect on attitudes toward the product in the less-popular-brand condition; the results are in line with this assumption (product attitude in the case of less popular brands: $M_{\text{“for you” statement absent}} = 3.54$, $M_{\text{“for you” statement present}} = 2.62$, $t = -3.129$, $p < .001$ one-tailed test). In sum, Experiment 2 shows that “for you” statements elicit self-related thoughts that do not affect attitudes toward the product when they are included in ads for products of popular brands. This finding is consistent with the result of Experiment 1. On the contrary, in ads for products of less popular brands, the use of “for you” statements deteriorates attitudes towards the advertised product.

6 Experiment 3

In the third experiment, we vary the strength of arguments for purchasing a product of unknown brands and test the effect of “for you” statements under these conditions.

6.1 *Experimental design*

The experiment is based on a 2 (“for you” statement: present vs. absent) \times 2 (argument strength: high vs. low) between subjects design. This design was replicated for two product categories (outdoor jacket and television set) using a within-subjects design.

6.2 *Pretest to select the arguments which differ regarding strength*

We conducted a pre-test to identify strong and weak arguments and asked 31 students to indicate whether certain product attributes “describe a superior product of its category” on a seven-point scale. For each product category, we selected three attributes with a mean rating above the scale value of 5 and regarded them as strong arguments. Additionally, we choose three attributes with an average rating below 4 and used them as weak arguments. For instance, for the outdoor jackets, the argument “water proof and breathable GORE-TEX® Performance Shell Jacket” was classified as strong and the argument “available in different colors” was classified as weak. For the TV set, “Full HD 1080p” served as a strong argument and “double clear-coat finish” as a weak argument.

6.3 Test stimuli

All ads contained a brand name which was unknown in Germany, a picture of the advertised product, and the arguments. According to the experimental design, one half of the ad versions contained a “for you” statement. For the outdoor jacket, this statement was as follows: “Attention! You want to be prepared for any weather conditions? Then this jacket is just the thing for you! Whether the urban jungle or a mountain tour, with the new Orvis jacket your adventure can begin!” For the TV set, the statement was as follows: “Impressive pictures that take your breath away. The fascinating sound outshines reality. Does that exist only in the movies? The new Clarion makes it possible and your TV night will be perfect!” For the outdoor jacket, the resulting ad versions are shown in Figure 7.



Figure 7: Ad versions used in Experiment 3 (Examples)

6.4 Sample, procedure, and measures

Initially, the sample consisted of 149 persons aged between 17 and 65 years (56% female) who evaluated both products. Because some test participants reported that their interest in the products was very low or provided inconsistent data, we eliminated few observations. Thus, the final sample size was 143 for the outdoor jacket and 142 for the TV set. We used an online survey to collect the data. The data collection took place in Germany in 2012. The participants were randomly assigned to one of the four experimental conditions. They saw

an ad version of the outdoor jacket, evaluated this product and reported the degree to which the ad elicited self-related thoughts. Subsequently, they were exposed to an ad version of the TV set (same experimental condition), evaluated this product, and provided data regarding self-related thoughts. We used four items to assess the attitudes towards the advertised product (“attractive,” “interesting,” “appealing,” and “good,” seven-point scale, Cronbach’s $\alpha=.909$). We asked the participants to agree or disagree to “The advertiser targets me” and “The advertiser made that advertisement to appeal to people like me” on a seven-point scale to indicate whether the ads evoked self-related thoughts ($R = .644$).

6.5 Results

In Figure 8, we summarize the effects of the presence of the “for you” statement on self-referencing and on product attitudes for the case of the outdoor jacket.

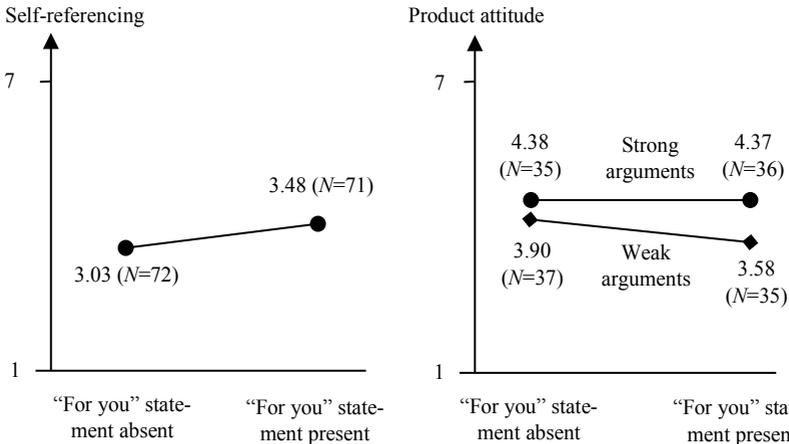


Figure 8: Effect of “for you” statements on self-referencing and product attitudes (Experiment 3)

The findings show that the presence of the “for you” statement increased the degree of self-referencing ($M_{\text{“for you” statement absent}} = 3.03$, $M_{\text{“for you” statement present}} = 3.48$, $t = 1.721$, $p < .05$). In the strong-argument condition, the presence of the “for you” statement did not influence the attitudes towards the advertised product ($M_{\text{“for you” statement absent}} = 4.38$, $M_{\text{“for you” statement present}} = 4.37$, $t = -.041$, n.s.). In the weak-argument condition, the attitudes were less favorable when the “for you” statement was inserted in the ad ($M_{\text{“for you” statement absent}} = 3.90$, $M_{\text{“for you” statement present}} = 3.58$, $t = -1.064$). However, the effect was not significant. The findings for the TV set were similar to the results observed for the outdoor jacket. The “for you” statement caused a higher degree of self-referencing ($M_{\text{“for you”}}$

statement absent = 2.87, $M_{\text{“for you” statement present}} = 3.69$, $t = 2.909$, $p < .01$) but did not influence product attitudes in the strong-argument condition ($M_{\text{“for you” statement absent}} = 4.30$, $M_{\text{“for you” statement present}} = 4.34$, $t = .126$). In the weak-argument condition, attitudes were impaired ($M_{\text{“for you” statement absent}} = 3.82$, $M_{\text{“for you” statement present}} = 3.36$, $t = -1.457$, $p < .10$).

7 Conclusion

In sum, our results are in line with the postulated effect of “for you” statements in advertisements. These statements do not affect attitudes in the case of popular brands or when they are combined with strong arguments. They impair attitudes in the case of less popular brands or when they are combined with weak arguments. Based on these findings, we recommend not using this type of self-referencing stimuli even in the case of popular brands or strong arguments because the consumer’s attention is attracted by a piece of information that does not improve product evaluations.

Note

The experiments which were presented at the ICORIA 2012 are published in another outlet. Thus, the authors present the findings of follow-up studies. The findings of these studies are in line with the results presented at the conference. The authors wish to thank Daniela Hörner, Maria Groß, Melanie Kochannek, Christin Soldner, Felix Oeder, and Gerhard Oberndörfer for assisting us in developing the stimulus material and collecting the data.

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An Examination of the Current Usage of Probability Markers in Print Advertising: A Content Analysis

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1 Introduction

Probability markers are specific words or phrases used to signal to which degree is it likely that a given claim or argument is true. They indicate various levels of probable (hedges) or certain (pledges) truth, and can be used in advertising to reduce the consumers' tendencies to counter-argue the claim of the ad (Vestergaard and Schroder, 1985) or to enhance the credibility of the claim (Areni, 2002). Over the years, a number of researchers have contributed theoretical insights into the effects of hedges in advertising (Leech, 1966; Geis, 1982; Vestergaard and Schroder, 1985; Cook 1992). Empirical studies on the topic of probability markers have, until recently, been concentrated mainly in a study by Harris et al. (1993), and the works of Areni and his associates (e.g. Berney-Reddish and Areni, 2005, 2006). The conclusions on the effects of probability markers have been far from unequivocal, with some researchers finding, for example, that hedges increase message acceptance (Geis, 1982; Harris et al., 1993), and others suggesting a negative effect of hedges on persuasion (Leech, 1966; Sparks et al., 1998, Berney-Reddish and Areni, 2005, Durik et al., 2008). Recent studies (e.g. Bušljeta Banks and De Pelsmacker, 2012; Bušljeta Banks et al., 2012) have renewed the interest in probability markers, as well as possible moderators of their effectiveness, such as gender, involvement, and buying motivation, that might explain the variability of their effectiveness.

Although researchers agree that probability markers are often used in advertising (e.g. Geis, 1982, Areni, 2002, Bušljeta Banks and De Pelsmacker, 2012), such assertions have yet to be empirically proven. The purpose of this study is to provide an overview of the current situation in advertising with regards to the use of probability markers, specifically identifying the context(s) in which they are used and how. To do so, a content analysis of Croatian print advertisements from the period 2010-2011 was conducted on a sample of 783 ads. Croatia was chosen as a country with a low uncertainty avoidance index of 13.28 (Matic, 2006), since tolerance for ambiguity moderates the impact probability markers have on customers' responses (Bušljeta Banks and De Pelsmacker, 2012).

2 Probability Markers in Advertising

Those markers that indicate probable truth of a claim are known as *hedges*, whereas the markers that indicate complete commitment to the truthfulness of the claim are known as *pledges*. Hedges, which can be adverbs (“possibly”, “probably”), verbs (“can”, “help”), particles (“about”, “sort of”), or other expressions (“9 out of 10”, “85%”, etc.), weaken the impact of a claim by allowing for exceptions or avoiding total commitment (Erickson et al., 1978; Wright and Hosman, 1983). Language that contains hedges is considered powerless. Powerless language results in negative speaker attributions and evaluations (Erickson et al., 1978; Bradac and Mulac, 1984). Pledges, examples of which also include adverbs (“definitely”, “undoubtedly”), verbs (“will”, “guarantee”), and other expressions (“have been proven to”, “you can be sure”), are absolute in nature and signal total confidence in the truthfulness of the claim (Berney-Reddish and Areni, 2005). They are considered markers of powerful language, resulting in positive speaker attributions (Erickson et al., 1978; Bradac and Mulac, 1984).

Researchers disagree with regards to the role probability markers play in advertising, or more specifically, to the effects the use of probability markers in advertising copy has on the credibility and persuasiveness of the ad. On one hand, Leech (1996) claims that hedges create ambiguity in the message and weaken its impact. Berney-Reddish and Areni (2005) find that the use of hedges and pledges reduces claim acceptance and results in more negative cognitive responses compared to ads without probability markers. In a later study, Berney-Reddish and Areni (2006) also found that women respond negatively to both hedges and pledges in advertising, while for men pledges seem to have no effect on claim acceptance. On the other hand, having found that hedges often appear in advertising claims, Geis (1982) concluded that it would be unlikely for copywriters to use hedges so frequently if they really had a negative effect on persuasion. A study by Harris et al. (1993) offers empirical proof for this conclusion – the results show that the use of hedges leads to greater claim acceptance by increasing credibility of the message. In an attempt to disentangle the issue, Bušljeta Banks and De Pelsmacker (2012) investigate possible moderators to the effect. Their results show that the use of hedges in ads for hedonic low-involvement services increases brand attitude and purchase intentions, while the use of claims containing pledges in ads of utilitarian low-involvement services results in highest levels of purchase intentions, as well as that tolerance for ambiguity moderates the effect of probability markers. Bušljeta Banks et al. (2012) also find that men, but not women, are sensitive to the use of probability markers in advertising, preferring advertising claims with hedges to those with pledges.

To provide further insights into the complex issue of probability marker usage in advertising, this study answers the following research questions:

RQ1: How often are probability markers (hedges and pledges) used in advertising and in which way (in regards to the different types of probability markers, their strength, as well as placing in the ad)?

RQ2: Are there any differences in the usage of probability markers based on other elements of the advertisement?

3 Method

Over a period of two years (2010-2011), print ads were collected from all major Croatian periodicals (*Vecernji list, Jutarnji list, Vjesnik, Slobodna dalmacija, 24 sata, Poslovni dnevnik, Gloria, Lisa, Cosmopolitan, Nacional, Globus, Auto klub, Lider*). Print advertisements were chosen because they provide the best medium for conducting meaningful, detailed comparisons (Harris and Attour, 2003) in this case. Once all the duplicates were excluded, a total of 3915 ads were collected. A systematic random sample (every 5th ad) was selected for analysis, resulting in a final sample of $N = 783$. One expert coder was asked to extensively test the coding instrument on 35 ads that were not part of the final sample and identify possible coding problems, so they could be corrected prior to the coding (Perreault and Leigh, 1989). Two main coders and a “tie-breaker” expert coder were thoroughly trained on 10 advertisements that were not part of the final sample. The two main coders independently coded each of the ads. Inter-coder reliability was calculated, following the guidelines of Lombard et al. (2002), on the full sample using two indices, Cohen’s (1968) Kappa and Krippendorff’s (1980) Alpha, for each variable. All coefficients were acceptable, ranging from 0.757 to 0.938. Cases of disagreement between two main coders were solved by the third coder, and the resulting data used in the analyses.

The coding scheme was developed using operational definitions of the variables based on relevant extant literature. The main variables are product/service category, probability markers, type of appeal used, context, focus, and endorser. For the service/product category variable a list of 30 categories was used, based on the inventories developed by Ferguson et al (1990), Tan et al. (2002), and Verhellen, et al. (2011). Resnik and Stern’s (1977) classification of rational appeals, as modified by De Pelsmacker and Geuens (1997) was also used. For emotional appeals, the coders were trained to record the “emotional technique” (De Pelsmacker and Geuens, 1997) used in the ad, not their own emotional reaction to the ad. The inventory of emotional appeals was adapted from De Pelsmacker and Geuens (1997), with the exclusion of nostalgia and provocation and inclusion of “other”, upon pre-testing of the coding scheme.

Table 1. Coding scheme

Variable name	Coding instructions	Coding scores
Ad code #	# identifying ad	
Type of service/product	Product or service category being advertised	<ol style="list-style-type: none"> 1. Household appliances, 2. Cleaning products, 3. Medication, 4. Household equipment, 5. Furniture, 6. Detergent, 7. Internet and digital TV, 8. Telecommunication, 9. Automobiles & motorbikes, 10. Electronics, 11. Cosmetics, 12. Perfume, 13. Beauty & skincare products, 14. Jewelry, 15. Health products, 16. Games, 17. Sports, 18. Relaxation & wellness, 19. Travelling, 20. Media, 21. Gambling, 22. Food & non-alcoholic beverages, 23. Alcoholic beverages, 24. Fashion, 25. Financial services, 26. Institutional services, 27. Opticians, 28. Energy & fuels, 29. Retail, 30. Other services
Brand	Brand name advertised	
Probability marker	Words that signal the degree to which it is likely that the advertising claim is true	<ol style="list-style-type: none"> 0. None 1. Hedge 2. Pledge
PM phrase	The exact probability marker used	

PM type	Which part of speech is used as a probability marker?	<ol style="list-style-type: none"> 1. verb (e.g. may, could, help, seem, promise, ensure) 2. adverb (e.g. possibly, definitely, absolutely) 3. adjective (e.g. significant), 4. superlative (e.g. the best) 5. pragmatic particle (e.g. about, sort of, a typical x), 6. clause (e.g. for all we know, studies show, it has been found)
PM strength	On a scale from 1 to 5 (1 the weakest, 5 the strongest)	
PM placing	Which part of the ad is the probability marker placed in?	<ol style="list-style-type: none"> 1. headline, 2. baseline, 3. copy, 4. small print
PM size	Size of font used for the probability marker	<ol style="list-style-type: none"> 1. small, 2. medium, 3. large
Type of appeal	Type of appeal used in the ad	<ol style="list-style-type: none"> 1. emotional, 2. rational, 3. mix
Emotional appeal	If the appeal is emotional, what category does it belong to?	<ol style="list-style-type: none"> 1. humor, 2. eroticism, 3. warmth, 4. fear, 5. other
Rational appeal	If the appeal is rational, what category does it belong to?	<ol style="list-style-type: none"> 1. price/value, 2. quality, 3. performance, 4. components, 5. availability, 6. taste, 7. package/format, 8. warranties, 9. safety, 10. nutritional value, 11. independent research, 12. company's own research 13. new ideas
Context	Context of the situation depicted in the ad	<ol style="list-style-type: none"> 1. business, 2. sports, 3. nature,

		<ol style="list-style-type: none"> 4. home, 5. leisure, 6. street, 7. other
Focus	How is the ad oriented?	<ol style="list-style-type: none"> 1. image-oriented 2. information-oriented
Endorser	Is there an endorser in the ad?	<ol style="list-style-type: none"> 0. no 1. yes
Endorser type	Type of endorser used in the ad	<ol style="list-style-type: none"> 1. celebrity, 2. expert, 3. regular customer, 4. spokescharacter
Endorser #	Number of endorser(s) featured in the ad	<ol style="list-style-type: none"> 1. 1, 2. 2, 3. group (3 or more)
Endorser gender	Gender of endorser(s) used	<ol style="list-style-type: none"> 1. male, 2. female, 3. mixed (groups)

The inventory used to classify probability markers according to the part of speech was developed on the basis of extant linguistic and marketing literature on the topic (e.g. Leech, 1966; Geis, 1982; Wright and Hosman; 1983; Berney-Reddish and Areni, 2005, 2006) and supplemented with a comprehensive list of examples used during the coder training and the coding process. While the inclusion of the superlative category into the inventory was debatable, the final decision to include it was made in consultation with the expert coder following the pre-testing of the coding scheme.

4 Results and discussion

4.1 *General characteristics of Croatian advertisements*

Main elements of each ad (product/service advertised, emotional/rational appeals used, the context and focus of the ad, and the possible usage of endorsers) were coded and analyzed to help answer the research questions, especially R2. The results also provide an interesting insight into the general characteristics of current Croatian print advertisements. Therefore, these results can be useful to a wider marketing-research audience.

While all of the 30 product/service categories were represented by at least two advertisements in the final sample, the majority (60.4%) fell into one of the following categories: food & non-alcoholic beverages (14.9%), automobiles & motorbikes (12.9%), retail shops (10%), media (9%), beauty & skincare products

(8.4%), and medication (5%). More than half of the coded ads (51.9%) are based on rational appeals, 20.2% of them rely on emotional appeals, and 28% use a mix of both types ($\chi^2(2) = 127.962, p < .001$). The emotional appeal most often used is warmth (36.9%), followed by the “other” category (34.1%). The coders listed pride, comfort, and status as appearing most often in the “other” category. Among the advertisements relying on rational appeals, most used price/value (32.3%), quality (12.4%), and components (12.4%).

The context/setting, of most of the coded advertisements (72%) does not fall under any of the contexts included into the coding inventory. During the debriefing session, all three coders agreed that this is due to the fact that most ads actually have no context or setting, but are instead simple pictures of the product advertised on a single-colored background. Because of this, no meaningful analysis of the context variable could be done. As far as the focus of the ad is concerned, a great majority of the advertisements coded (70.4%) are image- as opposed to information-oriented. In other words, most ads merely contain a picture of the product or a product element of a service, with only the brand name or a simple slogan featured. Finally, the usage of endorsers in ads was also explored and the results show that endorsers appear in less than 40% of the ads. When endorsers are used, they are mostly regular customers (71.9%) and least often experts (5.2%). Usually (in 63.5% of the ads) only one endorser is used, and almost half of the endorsers (47.2%) are women, while 22.7% are men, and the rest of the ads (30.1%) feature pairs or groups that include both genders.

Table 2. Most frequent advertisement elements

Variable	%	n	χ^2^*
Product/service category:			842.32
food & non-alcoholic beverages	14.9%	117	
automobiles & motorbikes	12.9%	101	
retail	10%	78	
media	9%	72	
beauty & skin care	8.4%	66	
medication	5%	39	
Advertising appeal:			127.96
rational	51.9%	406	469.83
<i>price/value</i>	32.3%	175	
<i>quality</i>	12.4%	67	
<i>components</i>	12.4%	67	
mix	28%	219	
emotional	20.2%	158	98.94
<i>warmth</i>	36.9%	108	
<i>other</i>	34.1%	100	

Context: other (none)	72%	564	2152.36
Focus: image-oriented	70.4%	551	129.96
information-oriented	29.6%	232	
Endorser: no	60.3%	472	436.42
yes	39.5%	309	
<i>one endorser</i>	63.5%	195	127.45
<i>regular customer</i>	71.9%	220	362.99
Endorser gender: female	47.2%	146	29.50
mixed gender groups	30.1%	93	
male	22.7%	70	

*p < .001

4.2 RQ 1: Frequency and manner of probability marker usage

To answer RQ1 and provide insights into how frequently probability markers are used in advertising, and in which way, the coders were asked not only to report on the presence or absence of pledges and hedges in the advertisements, but also to record the exact phrase used, categorize it according to the part of speech classification, rate the strength of the probability marker (on a scale of 1 to 5, anchored by “possibly one of the” and “100%”, which a pre-test confirmed to match the lowest and the highest end of the scale respectively). Chi square analyses were performed to test the differences between various characteristics of probability markers. The results of the study show that approximately one in four advertisements (25.3%) contains a probability marker, and that pledges (105) and hedges (93) occur equally frequently ($\chi^2(1) = .727, p = .394$).

The majority of hedges used are verbs (34.4%), clauses (28%), or pragmatic particles (25.8%), unlike pledges, which are mostly expressed through superlatives (75.2%) ($\chi^2(5) = 131.516, p < .001$). The most frequent hedge expression is the verb “to help” (21.5%), whereas the superlative “the best” appears as the most often used pledge (24.8%). Both hedges and pledges occur mostly in the copy (52.7% of the hedges and 46.2% of the pledges), with pledges also frequently appearing in the headlines (38.5% of pledges, but only 17.2% of hedges; $\chi^2(3) = 16.889, p < .01$). Both are most often set in small font (53% of the hedges and 48.6% of the pledges, $\chi^2(1) = .038, p = .845$). Pledges appear more often set in large font (25.7%) than hedges do (18.3%), but the difference is not statistically significant ($\chi^2(1) = 2.273, p = .132$). The placing and typesetting of hedges in a manner that makes them less obvious in the ads, and thus easier to

ignore, supports Geis' (1982) assertion that one of the reasons hedges are successful in advertising is that they are effectively ignored by the consumers.

Table 3. Characteristics of probability markers used in coded advertisements

Variable	Hedges		Pledges		χ^2
	%	n	%	n	
PM type: verb	34.4%	32	0.0%	0	131.52*
adverb	2.2%	2	4.8%	5	
adjective	7.5%	7	5.7%	6	
superlative	0.0%	0	75.2%	79	
pragmatic	25.8%	24	15.1%	17	
part. clause	28.0%	26	0.0%	0	
PM strength: very weak	0.0%	0	0.0%	0	21.92*
weak	6.5%	6	0.0%	0	
neither	37.6%	35	17.1%	8	
strong	41.9%	39	51.4%	54	
very strong	14.0%	13	31.4%	33	
PM placing: headline	17.2%	16	38.5%	40	16.89**
baseline	15.1%	14	12.5%	13	
copy	52.7%	49	46.2%	48	
small print	15.1%	14	2.9%	3	
PM size: small	57.0%	53	48.6%	51	1,91***
medium	24.7%	23	25.7%	27	
large	18.3%	17	25.7%	27	

* $p < .001$, ** $p < .01$, *** $p = .385$

4.3 RQ 2: Differences in probability marker usage

Although there were certain overlaps, the appearance of hedges and pledges across product/service categories varied ($\chi^2(17) = 49.998$, $p < .001$). A great majority of all hedges (74.2%) appeared in ads for food & non-alcoholic beverages (22.6%), beauty & skincare products (21.5%), jewelry (17.2%), and medication (12.9%). Pledges were more scattered among the categories, but most often placed in ads for food & non-alcoholic beverages (21.9%), media (13.3%), retail (12.4%), and beauty & skincare products (11.4%). Advertisements for cleaning products, furniture, perfume, relaxation & wellness, travel, alcoholic beverages, energy & fuel, and other services did not feature any probability markers, while the ads for health products never appeared without a pledge.

Since previous research shows moderating effects of involvement and hedonic/utilitarian purchase motivation (Bušljeta Banks and De Pelsmacker 2012), we also examined whether there are differences in the use of probability markers

based on whether the product/service in the ad is high or low involving, and hedonic or utilitarian. A group of six expert marketing researchers looked at the 30 product/service categories included in the coding scheme and marked those they considered to be distinctly high or low involving and hedonic or utilitarian. Only the categories all six researchers agreed upon were then included in the crosstabulation analysis. For low involvement, this included cleaning products, detergent, food and non-alcoholic beverages, and energy & fuel, while automobiles & motorbikes, travelling, electronics, and fashion were included into the high involvement group. The results show a significant difference in the usage of probability markers between the low and high involvement groups ($\chi^2(2) = 29.577$, $p < .001$). Probability markers appear more frequently in ads for low involvement products/services (in 35%) than in ads for high involvement products/services (10.4%). This practice is in line with the findings of previous studies that probability markers are more effective when used in ads of low involvement services (Bušljeta Banks and De Pelsmacker 2012).

Table 4. Frequency of probability marker usage in low and high involvement product/service categories

Probability marker used in the ad	Low involvement products/services		High involvement products/services		χ^2
	%	n	%	n	
None	65.1%	82	89.6%	155	29.58*
Hedge	16.7%	21	2.3%	4	
Pledge	18.3%	23	8.1%	14	

* $p < .001$

The product/service categories recognized as hedonic were: perfume, jewelry, games, sports, relaxation & travelling, media, gambling, alcoholic beverages, and fashion. Those listed as utilitarian were: household appliances, cleaning products, medication, detergent, financial services, institutional services, opticians, and energy & fuel. The use of probability markers in ads of hedonic vs. utilitarian products/services also shows significant differences ($\chi^2(2) = 21.049$, $p < .001$). Although the great majority of both ads featuring hedonic products/services (86.6%) and utilitarian products/services (73.5%) make no use of probability markers, those ads that do include them, do so differently. None of the hedonic product/service ads contain hedges, yet a few (13.4%) contain pledges. Probability markers seem more often used in utilitarian product/service advertisements (in 26.5% of them), with 14.7% of such ads containing a hedge and 11.8% a pledge. These findings are contrary to the conclusions of Bušljeta Banks and De Pelsmacker (2012) that hedges work best for hedonic services, and pledges for utilitarian ones.

Table 5. Frequency of probability marker usage in hedonic and utilitarian product/service categories

Probability marker used in the ad	Hedonic products/services		Utilitarian products/services		χ^2
	%	n	%	n	
None	86.6%	116	73.5%	75	21.05*
Hedge	0.0%	0	14.7%	15	
Pledge	13.4%	18	11.8%	12	

* $p < .001$

While most probability markers (50%), in the case of emotional appeal ads, appear in those based on, generally there is no difference between the usage of hedges and pledges ($\chi^2(3) = 2.298, p = .513$). In the case of ads based on rational appeals, however, there are differences ($\chi^2(11) = 32.387, p < .001$). Namely, hedges are mostly used in combination with rational appeals based on the company's own research (24.7%), and never or hardly ever with appeals based on warranties (0%) and safety (1.1%). Pledges, on the other hand, occur mostly in combination with price/value (21.2%) and quality (21.2%), and not at all in combination with appeals based on new ideas. Ads based on the company's own research results are especially interesting, as the only category in which there are more ads that use hedges (18 out of 24, i.e. 75%), than those that contain pledges (4/25 or 16%) or no probability marker at all (2/25 or 8%). This is the only product/service category in which the number of ads with probability markers is higher than the number of those without. This finding might offer proof for assertions that hedges are successful in advertising because they are undistinguishable from the "law-like generic claims of scientists" (Geis, 1982, p. 83), thus putting the advertiser in a legally advantageous position in which they do not claim anything they cannot offer proof for (Berney-Reddish and Areni's, 2005).

Since the context, or setting, of a great majority of the coded ads does not fall under any of the contexts included into the coding inventory, no differences were found in the probability marker usage in relation to the context of the ad ($\chi^2(12) = 14.573, p = .255$). While most of the coded ads are image-oriented, probability markers, however, are used considerably more often in information-oriented ads (in 49.2% of them), than in image-oriented advertisements (20.5%). This finding seems logical, taking into account that information-oriented ads contain generally more text than the image-oriented ones. Interestingly however, while more than half of all hedges used (52.7%) appear in information-oriented ads, pledges are used more often in image-oriented ads (65.7%, $\chi^2(2) = 30.492, p < .001$), where they would stand out due to lack of other verbal elements.

Although previous research on the effects of probability markers on source credibility (Erickson et al., 1978; Bradac and Mulac, 1984) and on the moderating effects of gender on the impact of probability markers in advertising

(Busljeta Banks et al., 2012) would lead us to expect significant differences in the usage of probability markers based on the existence and gender of endorsers in the ads, no such differences were found (existence: $\chi^2(4) = 5.758$, $p = .218$, gender: $\chi^2(4) = 4.884$, $p = .299$, all other endorser characteristic $p > .05$).

Table 6. Where do hedges and pledges appear most frequently?

Variable	Hedges		Pledges		χ^2
Product/service category:	%	n	%	n	181.03*
food & non-alc. beverages	22.6%	21	21.9%	23	
media			13.3%	14	
retail			12.4%	13	
beauty & skin care	21.5%	20	11.4%	12	
medication	12.9%	12			
jewelry	17.2%	16			
Advertising appeal:					32.39*
rational					
<i>company's own research</i>	24.7%	18	21.2%	18	
<i>price/value</i>			21.2%	18	
emotional					2.30**
<i>warmth</i>	76.9%	10	64.7%	11	
Context:					14.75**
other (none)	75%	69	67.6%	71	
Focus:					30.49*
image-oriented			67.5%	69	
information-oriented	52.7%	49			
Endorser:					5.76**
no	63.4%	59	69.5%	73	
yes	36.6%	34	32%	32	
<i>one endorser</i>	73.5%	25	59.4%	19	
<i>regular customer</i>	88.2%	30	75%	24	
Endorser gender:					4.88**
female	58.8%	20	53.1%	17	
mixed gender groups	26.5%	9	34.4%	11	
male	14.7%	5	12.5%	4	

* $p < .001$, ** $p > .05$

5 Conclusion

One in four advertisements in Croatia includes a probability marker, and hedges and pledges are used equally frequently and in the same manner. Some differences in the usage of pledges and hedges were found in relation to the category of the product/service advertised, with hedges being mostly concentrated in food & non-alcoholic beverages, beauty & skincare products, jewelry, and medication

ads, and pledges more evenly scattered across categories. In those ads that are based on rational appeals, hedges appear most frequently in combination with appeals based on company's own research, but pledges mostly accompany appeals based on warranties and safety. Hedges are more frequent in information-oriented ads, pledges in image-oriented ones. In all other respects, no differences between the use of hedges and pledges were found.

Especially in countries like Croatia, where the low uncertainty avoidance index presupposes a population more tolerant to ambiguity, and where hedges have been found to have a positive impact on ads of low-involvement, hedonic services (Bušljeta Banks and De Pelsmacker, 2012), advertisers should make more use of this finding. Advertisers should also make more use of the findings relating to gender as a moderator of probability marker effectiveness (e.g. Bušljeta Banks et al., 2012).

The present study is based on a systematic random sample of ads collected in one country over a period of two years, thus providing a limited view of the usage of probability markers. Future research that would compare the results of this study to the situation in other countries, specifically countries that score on the higher end of the uncertainty avoidance index, is needed to paint a more complete picture of the usage of probability markers in advertising cross-culturally. Additionally, a longitudinal approach might be useful, repeating the present study under similar conditions at a future date. As most of the findings on the effectiveness of probability markers in advertising are rather recent, it would be interesting to test in a few years whether they have had any impact on the advertising practice.

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The Influence of Demographic Factors on the Perception of Humane-Oriented (CSR) Appeals in Advertisements: A Multi-Country Analysis

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1. Introduction

The study examines the role of demographic factors (sex, age, education and children) on attitudes toward a print ad employing a humane-oriented appeal (CSR) in the United States, France, Germany and Switzerland. Results from a survey of 663 subjects in the four countries revealed that female consumers evaluated the ad significantly more favourably than did male consumers in three of the four countries. Some support was found for the hypothesis that younger people (up to age 30) hold more favourable attitudes toward such ads than do older individuals (though differences were not significant for all countries). With regard to children, only limited differences between subjects with children and those without children were found. In the US, mothers had a significantly more favorable attitude compared to non-mothers. In France, fathers evaluated the ad with a humane-oriented appeal less favorably than did non-fathers. Contrary to expectations, education showed no significant influence on attitudes toward the humane-oriented ad in any of the four countries investigated. Limitations and directions for further research are addressed.

A recent Nielsen survey (2012) confirmed what other studies have already suggested, that the majority of consumers around the globe today express a general preference for companies making a positive difference in the world (see Edelman goodpurpose Report, 2009; Cone Communications/Echo Research 2011 Cone/Echo Global CR Opportunity Study). Nielsen, which surveyed more than 28,000 online respondents from 56 countries, found that two-thirds (66%) of consumers say they prefer to buy products and services from companies that implemented programs that give something back to society. That preference extends to other matters too: they prefer to work for these companies (62%) and invest in these firms (59%). A smaller share, but still nearly half (46%) say they are willing to pay extra for products and services from such companies. Survey results indicate that “socially-conscious consumers” as defined and focused upon in the Nielsen report, cared most about environmental sustainability. From a list

of 18 causes that included the United Nations' Millennium Development Goals (www.un.org/millenniumgoals), as well as other prominent corporate social responsibility topics, 66 percent identified environmental sustainability as a cause companies should support. The second most important cause for 56 percent of socially-conscious consumers was improvements in science, technology and education. Eradicating extreme poverty and hunger was also a priority for this segment, with 53 percent of socially-conscious consumers believing brands should play a role in the cause.

Taking these studies together, results suggest that corporate social responsibility (CSR) as a marketing imperative has global consumer appeal and can help brands build deeper relationships. However, the findings also revealed important nuances by country – with consumers in some markets expressing significantly greater concern over corporate social responsibility - and their willingness to act on these concerns - than those in others. This suggests that corporations must recognize that social responsibility strategies may well be perceived and evaluated differently in local markets, which requires an in-depth understanding of what will motivate consumers in each locale (IB Times, 2011). One explanation for the variation in consumer responses to the issue of corporate social responsibility may be differences in their level of Humane Orientation – one of the GLOBE cultural dimensions (House, Hanges, Javidan, Dorfman and Gupta, 2004). Indeed, Diehl, Terlutter and Mueller (2012) found that inclusion of CSR elements (specifically humane-oriented appeals) in an attempt to increase ad evaluation appears to be particularly promising in those countries where individuals place greater importance on humane orientation. The current study extends this research and further explores the dimension of humane orientation by examining the influence that demographic factors play in consumer responses to advertisements containing corporate social responsibility messages.

2. Theoretical Background and Hypotheses

2.1 Humane Orientation

Humane orientation refers to the degree to which members of a society encourage and reward (or should encourage and reward) individuals for being fair, altruistic, friendly, generous, caring and kind to others (Kabasakal and Bodur, 2004, p. 569). This dimension draws on a number of concepts – Kluckhohn and Strodtbeck's dimension of Human Nature as Good vs. Human Nature as Bad (1961), Putnam's work on civic society (1993), and McClelland's (1985) concept of the affiliative motive (Kabasakal and Bodur, 2004). "Societies that score high on humane orientation tend to place importance on others (i.e. family,

friends, community and strangers); believe that people are motivated by the need for belonging and affiliation; give high priority to values of altruism, benevolence, love, kindness and generosity; and expect people to promote patronage norms and paternalistic relationships. Societies scoring low on this dimension, in contrast, believe that self-interest is important; power and material possessions motivate people; people are expected to solve personal problems on their own; formal welfare institutions replace paternalistic norms and patronage relationships; and the state sponsors public provisions and sectors..." (House et al., 2010, p. 122).

2.2 Humane Orientation and Advertising

Altruism, caring, generosity, and benevolence at the corporate level is closely associated with efforts by advertisers to highlight their socially responsible activities. As reported in the 2011 Cone/Echo Global CR Opportunity Study (IT Times, 2011), 93% of consumers in ten countries (the U.S., Canada, Brazil, the U.K., Germany, France, Russia, China, India and Japan) said firms must go beyond legal compliance to operate responsibly. Corporations are increasingly coming to realize that they are beholden not only to their shareholders, but also to their customers and even society in general (Grow, Hamm and Lee, 2005). Marketers must sell the message that they are "doing well by doing good" and simultaneously create high-level awareness of the connection between their brands and the social issues they support (Harris, 2005). One way of bringing together socially responsible behavior and consumption is cause-related marketing (CRM). In CRM campaigns, companies commit to donate a certain amount of money to a cause or charity per product sold. Nan and Heo (2007) demonstrated that an ad with an embedded cause-related marketing message elicited more favorable consumer attitudes toward the company, as compared with a similar one lacking a corporate responsibility message. Furthermore, when the embedded corporate responsibility message involved high vs. low brand-cause fit, consumer attitudes toward the ad and brand were more favorable. In the study conducted by Diehl, Terlutter and Mueller (2012), subjects in multiple markets were exposed to a print ad for a brand of watch which promised the advertiser would support education programs in developing countries with the sale of each watch. Results revealed a significant relationship between the perceived level of humane orientation in an ad and the overall evaluation of the ad. This proved to be true for every country in the investigation, which differed significantly with regard to their cultural background. Based on these investigations, it can be assumed that crafting advertisements that employ a humane-oriented appeal may be an effective means of enhancing the success of a commercial message in various markets. But, success in socially responsive market-

ing and advertising is largely predicated on an improved understanding of the socially responsible consumer. This research addresses the question to what extent do demographic factors, such as sex, age, education and children influence the perception of ads incorporating humane-oriented appeals? As Nic Covey, VP of Nielsen Cares, Nielsen's global corporate social responsibility program, states: "Marketers need to know who those consumers are in order to maximize the social and business return of their cause marketing efforts. This understanding allows brands to engage in social impact efforts that appeal to the right consumers with the right causes and through the right channels," (Shayon, 2012). Knowing more about the demographic factors which influence the perception of CSR appeals in advertising might help to reach this goal.

2.3 Demographics and Corporate Social Responsibility

While some investigations have revealed no or minimal correlations between demographic factors and attitudes and behaviors related to corporate social responsibility (Sikula and Costa, 1994; Roberts, 1996; Dickson, 2001; McGlone, Spain and McGlone, 2011, Rizkallah, 2011), others have found that variables such as age, sex, education and children, among other variables, do play a significant role.

Age: According to the Nielsen survey (2012), global, socially-conscious consumers tend to be younger: 63 percent are under the age of 40, compared to 55 percent of all respondents. In general, Nielsen's survey shows that younger consumers are more likely to spend extra on products and services from socially responsible companies. Fifty-one percent of all respondents aged 15 to 39 are willing to pay extra for such products and services compared to 37 percent of all respondents over the age of 40. The 2010 Cone Cause Evolution survey found Millennials (18-24) do their shopping with causes in mind. Ninety-four percent of this age group find cause marketing acceptable (vs. 88% average) and more than half (53%) have purchased a product benefitting a cause within the past year (Fritz, 2010). Both these studies support the findings of a very early investigation (Anderson and Cunningham, 1972) that revealed age to be a highly sensitive discriminator of social responsibility, with social consciousness varying inversely with age. Several investigations have also stressed that age is negatively correlated with concern over, and participation in, environmental issues (Carlsson and Johansson-Stenman, 2000; Howell and Laska, 1992; Grunert and Kristensen, 1992). Social concerns also guide financial decisions for a significant share of Gen X and Gen Y investors, according to a survey of 1,150 investors conducted by Millionaire Corner (Reyneri, 2012). Nearly half of investors age 40 and younger say they are very likely or likely to make socially responsible investments. The likelihood decreases steadily with age. Only about one-

fourth of investors age 60 or older say they are likely to invest in socially responsible companies. Several additional investigations, including Cheah, Jamali, Johnson and Sung (2011) and Junkus and Berry (2010) have also found that the typical socially-responsible investor is likely to be younger than their non-socially responsible counterpart. Based on the above, we propose:

Hypothesis 1 (H 1): In all markets, younger subjects will more favorably evaluate an ad incorporating a humane-oriented appeal than older subjects.

Sex: The literature describing sex and pro-social behavior, though not conclusive, generally supports a female-pro-social link. Eagly and Crowley's (1986) meta-analytic review of the literature on the topic found that females appear to engage in helping behavior that is more nurturing and caring, and thus more pro-social. In contrast, males tend to engage in a more heroic or individualistic form of helping behavior. Research on the antecedents of environmentalism and sustainable consumer behavior has found a robust gender effect: women are more likely than men to express concern about consumption's broader impacts and to act upon those concerns (Zelezny, Chua and Aldrich, 2000; Luchs and Mooradian, 2012). Roberts (1993) found that women scored higher on a scale designed to measure socially responsible behavior of consumers than did men. Berger, Cunningham and Kozinets (1999) revealed that females have more positive attitudes and higher purchase intentions for brands that use cause-related advertising than did men. Moosmayer and Fuljahn (2010) found that women showed significantly higher scores for consumer perceptions of firm behavior, for consumer attitude to the product and for consumer goodwill toward a cause related marketing campaign. They argue that because women respond more strongly to cause related marketing campaigns than men, such campaigns promise to be particularly suitable for promoting products to females. It has also been shown that women make up a larger proportion of socially-responsible investors from the overall investor population (Beal, Goyen and Phillips, 2005). Based on data from 20 countries, Cheah, et al (2011) found that females are more likely to hold views consistent with corporate social responsibility. Their investigation revealed that socially responsible female investors are more likely to believe that a company's social and environmental performance is as important as its financial performance, and that companies should be as responsible to their shareholders as to the broader society. Based on the above, we propose:

Hypothesis 2 (H 2): In all markets, female subjects will more favorably evaluate an ad incorporating a humane-oriented appeal than male subjects.

Children: This demographic factor has not received nearly the attention that

age and gender have. According to the 2010 Cone Cause Evolution Study, some 95 percent of mothers find cause marketing acceptable, and 9 out of 10 want to buy a product that supports a cause. They are also more willing to switch brands (93% vs. 80% average) in order to support a cause. All this translates into the fact that mothers purchased more cause-related products than any other demographic (61% vs. 41%), (Fritz, 2010). In terms of concern with the environment, some limited research has examined factors that moderate the gender and sustainable consumer behavior relationship. It appears that parenthood has been shown to dampen men's, but increase women's environmental concerns (Hamilton, 1985). As the general influence of parenthood is not clear and seems to point in opposite directions for men and women, we propose a research thesis for both sexes and separate hypotheses for men and women:

Research Thesis 1: In all markets, parents and non-parents will not differ with regard to their evaluation of the humane-oriented ad.

Hypothesis 3a (H 3a): In all markets, females with children will evaluate an ad incorporating a humane-oriented appeal more favorably than females without children.

Hypothesis 3b (H3b): In all markets, males with children will evaluate an ad incorporating a humane-oriented appeal less favorably than males without children.

Education: Several studies have concluded that the ethical consumer is a person with relatively high educational status (Roberts, 1996; Littrell and Dickson, 1999; Carrigan and Attalla, 2001; Maignan and Ferrell, 2001). De Pelsmacker, Driesen, and Rayp (2005) found that this socio-demographic profile was confirmed in the context of consumers' willingness to pay for fair-trade products in Belgium. However, the difference in education distribution of the clusters became insignificant if those with higher and lower levels of education were defined in alternative ways, i.e., as respondents with and without university degree, or in three categories (university degree, college non-university degree, and high school). The authors concluded that the relevant education difference was between high-school-only consumers and higher-education consumers. In terms of investing, several studies have demonstrated that the education levels of socially responsible investors (SRIs) explain their demand for socially responsible investment funds (Tippet and Leung, 2001; and Nilsson, 2009). Cheach et al. (2011) found "well educated SRIs are increasingly aware of the need for a systematic approach to managing the complete set of a company's responsibilities and for reconciling economic, social and environmental objectives to produce a

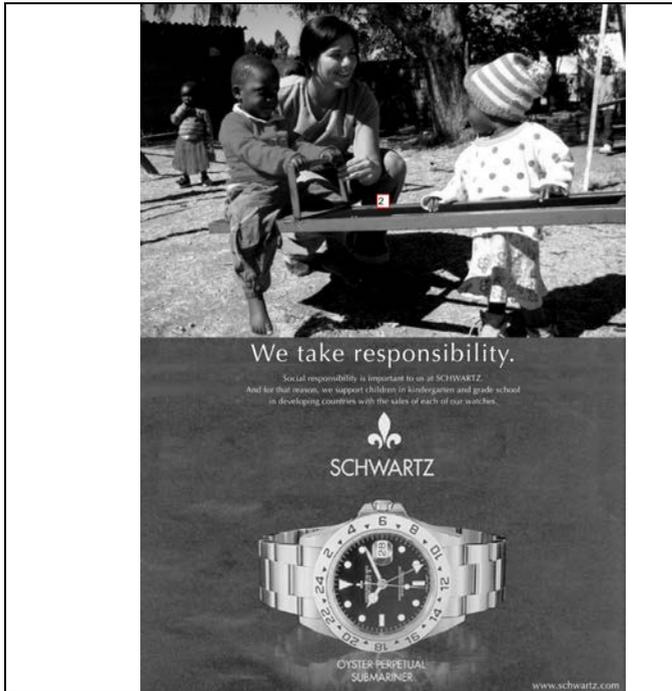
more balanced view of corporate performance” (p. 317). Based on the above, we propose:

Hypothesis 4 (H 4): In all markets, more highly educated subjects (those with education extending beyond high school) will evaluate an ad incorporating a humane-oriented appeal more favorably than those with less education (limited to high school).

3. Research Design and Method

A non-student survey was conducted in four countries in order to test the above stated hypotheses. In-person interviews were carried out in the U.S., Germany, Switzerland and France. A full-page advertisement for a wrist-watch was developed. A fictional brand name (“Schwartz”) was employed in order to control for attitudes toward established or recognized brand names. The dominant visual in the ad portrays a young female engaging with small children in a playground setting. The children appear to be from a developing country. The headline reads “We take responsibility.” The body copy reads: “Social responsibility is important to us at SCHWARTZ. And for that reason, we support children in Kindergarten and grade school in developing countries with the sale of each of our watches.” A shot of the watch is also included. The advertisement was designed in black/white to negate the influence of color preferences. The ad copy was translated into the local language. The ad was pre-tested to ensure that it was indeed perceived as portraying humane-oriented behavior. Figure 1 shows the English version of the advertisement. The current analysis is based on a total of 663 subjects (U.S.: 199, Germany, 151, France 163 and Switzerland 150). The ratio of male to female participants was 50:50. Ages of participants ranged from 17 to 84 years, with an average age of 33.64 years. One-third (33%) of subjects had children, 67% had no children; among female participants, the ratio was 33% with vs. 67% without children, and among male participants, 32% with vs. 68% without children. The ratio between higher vs. lower education was 63% vs. 37%. A structured questionnaire was developed. The translation/back-translation procedure was applied in the development of the questionnaire. Bi-lingual speakers translated the questionnaires and different bi-lingual speakers back-translated the questionnaires. To ensure comparable interviewing situation in all countries, all interviewers received extensive training and were provided with a standardized text to employ in approaching subjects. Though the majority of respondents completed the questionnaire independently, minimizing interviewer influence, in a small number of cases, the questionnaire was administered by the trained interviewers. Interviewers informed subjects that the investigation explored consumer responses to advertising.

Figure 1: English version of the standardized advertisement incorporating a Humane-Oriented Appeal



3.1 Variables

Attitude toward the Ad was assessed with four items, adapted from MacKenzie and Lutz (1989). They read: (1) “Overall, I find the ad ...” “not at all good” (=1) to “very good” (=7) (7-point-scale); “The ad is ...” (2) “interesting”, (3) “likeable” and (4) “pleasant” (7-point-scale, 7 = high). Cronbach’s α values were U.S.: .914, Germany: .893, France: .926, and Switzerland: .912. The scale was tested for measurement invariance across countries following the procedure of Steenkamp and Baumgartner (1998) and the results indicate that partial measurement invariance across countries is supported.

Demographic Variables: Age was measured in years and the highest completed education level was assessed via an open-ended question, where subjects were asked to fill in their level of education. With regard to sex and children, subjects were asked to indicate whether they are male or female and whether or not they have children.

4. Hypotheses Testing

In order to test our hypotheses, we computed the mean values for attitude toward the ad and applied a series of ANOVAs.

Hypothesis H1 predicted that younger subjects will more favorably evaluate an ad incorporating a humane-oriented appeal than older subjects. In order to divide younger and older subjects in two groups of relatively equal size, the median was calculated (30 years). Subjects younger than 30 years were clustered as younger people and subjects aged 30 years and older were clustered as older individuals. Table 1 reveals the results of ANOVAs of the data set as a whole, as well as for the individual countries.

Examining the data set as a whole, hypothesis 1 was confirmed (Mean value of younger subjects: 4.22; elder subjects: 3.91; $p < .05$). When looking at the individual countries, the attitudes of younger subjects were always more positive than the attitude of older subjects, but differences were only significant for France (Table 1). Therefore Hypothesis 1 was only confirmed for France, but not for Germany, the US or Switzerland. Thus, H1 was only partially supported.

Table 1: ANOVA results: Age-related differences

Country	Attitude toward the ad		
	Younger	Elder	<i>p</i>
All countries	4.22	3.91	.011**
Germany	4.20	3.93	.255
Switzerland	3.81	3.55	.285
France	4.40	3.70	.007***
US	4.45	4.36	.696

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

Hypothesis H2 addressed sex-related differences in the evaluation of humane-oriented appeals. It was hypothesized that in all markets, female subjects would evaluate an ad incorporating a human-oriented appeal more favorably than male subjects.

Again, ANOVAs were calculated (see Table 2). As expected, across all countries, female subjects expressed more positive attitudes toward the ad as compared to their male counterparts (Mean females: 4.33; males: 3.81; $p < .01$). With regard to the individual countries, in each country, women evaluated the humane-oriented ad more positively than did men, however, in the US differences between males and females were not significant. Nevertheless, H2 is largely supported.

Table 2: ANOVA results: Sex-related differences

Country	Attitude toward the ad		
	Men	Women	<i>p</i>
All countries	3.81	4.33	.000***
Germany	3.83	4.35	.029**
Switzerland	3.37	4.05	.005***
France	3.77	4.29	.043**
US	4.22	4.56	.115

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

Research thesis 1 analyzed the influence of children on the evaluation of the humane-oriented ad. Here, we expected no differences between parents and non-parents for all participants as former research has shown opposite tendencies for male and female parents. The research thesis was largely confirmed, as in the overall data set, as well as in Germany, France and Switzerland, differences between parents and non-parents were not significant (Table 3). Only in the US did subjects with children evaluate the ad more positively than did those without children.

Table 3: ANOVA results: Children-related differences

Country	Attitude toward the ad		
	Subjects with children	Subjects w/o children	<i>p</i>
All countries	4.16	4.02	.252
Germany	4.00	4.08	.747
Switzerland	3.64	3.70	.829
France	3.95	4.08	.663
US	4.68	4.22	.040**

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

Hypothesis 3a postulated that in all markets, females with children will evaluate an ad incorporating a humane-oriented appeal more positively than females without children, whereas H3b states that males with children will evaluate the ad incorporating a humane-oriented appeal less favorably than males without children.

H3a was only confirmed for the data set as a whole and for the US (on a 10% level): women with children evaluated the ad more favorably than did women without children. Differences in the other countries were not significant. H3b was also only confirmed for one country (France), here men with children had a less favorable attitude toward the ad than men without children. In summary, both hypotheses (3a and 3b) received only limited support (see Table 4). The interaction effect sex * children was only significant on a 10% level ($F = 3.117$;

$p = 0.078$). The main effect for the independent variable children was not significant ($F = 1.328, p > 0.10$).

Table 4: ANOVA results: Children-related differences with gender split

Country	Gender	Attitude toward the ad		p
		Subjects with children	Subjects w/o children	
All countries	male	3.75	3.83	.673
	female	4.58	4.21	.034**
Germany	male	3.44	3.96	.149
	female	4.51	4.26	.487
Switzerland	male	3.58	3.26	.360
	female	3.77	4.11	.455
France	male	3.15	4.03	.040**
	female	4.61	4.12	.158
US	male	4.45	4.08	.274
	female	4.86	4.36	.077*

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

H4 examined the influence of education on attitudes toward an ad with a humane-oriented appeal. The classification of education followed the breakdown recommended by De Pelsmacker, Driesen, and Rayp (2005) (lower levels of education defined as limited to high school, with higher levels of education defined as extending beyond high school). However, no differences were found, neither for the data set as a whole, nor for the individual countries. Therefore, H4 was not supported by our data (Table 5).

Table 5: ANOVA results: Education-related differences

Country	Attitude toward the ad		
	Higher education	Lower education	p
All countries	4.05	4.10	.670
Germany	4.10	3.98	.618
Switzerland	3.53	3.93	.108
France	3.89	4.24	.184
US	4.47	4.24	.327

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

5. Discussion

The results of former investigations (e.g. Diehl, Terlutter and Mueller 2012) suggest that, by incorporating CSR (humane-oriented) appeals in commercial

messages, advertisers may positively influence attitudes toward the ad. In this study we extended the research by Diehl, Terlutter and Mueller (2012) and further explored the dimension of humane orientation by examining the influence that demographic factors play in consumer responses to advertisements containing corporate social responsibility messages. As hypothesized, data revealed that women evaluated humane-oriented advertising more positively than did men (apart from the US data, where differences were not significant). Also, younger people (up to age 30) tended to express more favourable attitudes towards CSR appeals as compared to older subjects (though differences were not significant for every country). These findings by and large confirm the results of previous investigations. Whether a subject had children or not did not lead to differences in their evaluation of the ad. This might be due to the fact that subjects with offspring have a high level of empathy and sympathy for children who are less fortunate. At the same time, subjects without children conceivably might compensate for their lack of offspring by seeking to help those in need. As the literature review revealed interesting differences in the effects of parenthood on males vs. females, with fathers seeming to express less concern with social causes, and mothers expressing significantly greater concern about such causes, we also analyzed the data for gender-related effects. We found a limited tendency for mothers in the data set as a whole (and specifically mothers in the US) to evaluate the humane-oriented ad more positively as compared to non-mothers. In France, the data suggest that fathers indeed have less favourable attitudes toward the CSR ad as compared to men without children. This finding deserves further investigation in order to determine the underlying reasons. It may be that once men become fathers, they shift their focus toward their immediate family (e.g. with regard to financial resources/expenditures), whereas once women become mothers, they express greater empathy with social causes. In our study, education did not influence the evaluation of the humane-oriented appeal, neither in the data set as a whole, nor in any of the individual countries examined. This may be related to the fact that we focused solely on attitude toward the ad. Perhaps results would be different had we also explored behavioral intentions.

In summary, we conclude that because humane orientation is positively regarded in many countries, it can be seen as a promising appeal type for standardized cross-cultural advertising campaigns. This study demonstrates that certain demographic factors do indeed play a role in the perception of humane-oriented appeals. Results suggest that incorporation of CSR elements (i.e. in this investigation, humane-orientated appeals) in order to increase ad evaluation appears to be particularly promising for products targeting women (in particular, those with children) and younger people.

6. Limitations of the Study and Directions for further Research

Due to restrictions in space, this chapter focused solely on the evaluation of the ad. However the impact of demographic variables on attitude toward the product, as well as on behavioral intentions, needs to be taken into consideration as well. Future examinations of humane orientation should include a greater number of countries that differ even more significantly in their cultural background, e.g. Eastern or Latin-American countries. Regarding responses from German and Swiss subjects, it should be noted that data collection was limited to what was once considered West Germany and to the German-speaking region of Switzerland. Differences in the individual values and practices with regard to Humane Orientation may also play a relevant role in the evaluation of humane-orientated appeals in advertising. Humane Orientation should be analyzed in the context of advertisements for additional product categories, as well as for services.

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Are You Involved? Are You Focused?: The Regulatory Fit and Involvement Effects on Advertisement Effectiveness

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1 Introduction

Advertising researchers have been interested in *who* their audience is, *how* they process the advertisement, *where* they process it better, *what* they are expected to *learn* and what they actually *remember* and ultimately whether these advertisements work towards a multiplicity of goals like creating awareness or motivating purchase. Fundamental psychological theories like Elaboration Likelihood Model (ELM) (Petty, Cacioppo & Schumann, 1983) have been employed in this research quest and this study is an effort to bring together one of the most recent motivational theories of the regulatory focus together with the involvement literature which is rather long standing and possesses high predictability power. These two have not been brought together in previous academic studies, so an experimental design has been conducted in the context of print advertisement's efficiency.

2 Literature Review

2.1 *Involvement & Advertising*

Involvement is a thoroughly studied construct in marketing and advertising literature as it significantly influences information processing and determines buying behavior. Zaichkowsky (1985) defines involvement as “*a person's perceived relevance of the object based on inherent needs, values, and interests (p.342).*” A lot of work has been done in the areas of antecedents and consequences of involvement, types of involvement, what role involvement plays in advertising. As one of the earliest works, Dichter (1966) analyzes the impact of involvement under four main dimensions in terms of how it affects word-of-mouth. Accordingly; people are affected by product involvement; self-involvement, which is about self-confirmation, status, and affirmation; other involvement, which is related to care for others; and message-involvement, which is related to the entertaining part of the disseminated opinion. Arndt (1967) depicts the same issue more simply on an inner-other directedness axis, where inner directedness concerns self-involvement and other-directedness

involves concern for others. Engel and Blackwell (1982) approach the involvement construct with a “high” and “low” involvement dichotomy, which has been utilized by most studies. Houston and Rothschild (1978) analyze the construct by differentiating involvement based on people and situation combinations, while similarly, Clarke and Belk (1978) argue that different purchase situations lead to different search and evaluation processes. On the other hand, Bloch and Richins (1983) investigate object and situation combinations creating different involvement levels. Zaichkowsky (1986) aggregates all these works by classifying involvement based on person, situation, stimulus / object permutations and studies its effects on search and selection behavior in terms of advertising, products, and purchases. Zaichkowsky (1985, 1986) argues that involvement with product, advertisement, and the purchase decisions will affect the importance level of the offering, the amount of information search, and time spent for decision making. Celsi and Olson (1988) further develop the construct into “felt involvement”, which is major factor in motivating consumers' attention and comprehension. The authors define felt involvement as “*a consumer's level of involvement with an object, situation, or action is determined by the degree to which s/he perceives that concept to be personally relevant (p.211).*” The determining factors of felt involvement are the physical and social aspects of the immediate environment as well as the intrinsic characteristics of the individual, another approach to the involvement construct on the environment and person axes.

Apart from scholarly works that aim at defining involvement and its antecedents, a vast number of scales have been developed on this issue as well. Personal Involvement Inventory has been developed by Zaichkowsky in 1985, which has become the basis for similar works. Most commonly used scales measure product category involvement and advertisement involvement (Zaichkowsky, 1986).

Advertising involvement is especially important in advertising research because of its relation with high vs. low processing (Petty, Cacioppo & Schumann 1983) and having primary effect on very important outcomes like attitude persistence, WOM, ad effectiveness and many others. Krugman (1965) has argued that increasing involvement does not increase resistance to persuasion, but rather changes the effect order: high involvement causes communication to affect cognition first, then attitude, and then behavior. Low involvement, on the other hand, first affects cognition, then behavior, and finally attitude. Petty, Cacioppo, and Schumann (1983) approached the communication and involvement through a different manner and developed the ELM, which has been one of the most influential works in advertising. Accordingly, based on involvement levels, individuals trigger *central* or *peripheral routes* of attitude change with respect to advertising. With high involvement, central routes are triggered and factual information becomes crucial for attitude change, whereas for low involvement

more peripheral factors such as the endorsers or other environmental factors of the message may become important during the processing. Greenwald and Leavitt (1984) also define four levels of involvement with an increasing scale as pre-attention, focal attention, comprehension, and elaboration; with each level increasing attention capacity to a message source is invoked. Higher levels mean greater capacity and more sustainable cognitive and attitudinal effects. Kardes (1988) focuses on the inferences made in communication and advertising where missing information is inferred differently in high and low involvement conditions. In high involvement situations, inference is spontaneous and brand attitudes are more favorable and accessible than in low involvement conditions. In short, these fundamental works all pinpoint the fact that comprehension and processing of advertising information are different at varying levels of involvement.

2.2 *The Regulatory Focus, Regulatory Fit and Advertising*

The regulatory focus theory is a fundamental motivational theory that defends multiplicity of regulatory foci and it has been largely influential in the last 15 years to bring explanations to phenomena in the domains of information processing, attention, decision and others. After a series of experiments (e.g. Crowe & Higgins, 1997; Higgins et al., 1994; Shah & Higgins, 2001) it has been recognized that individuals with a promotion focus are strategically inclined to approach matches to desired end-states whereas individuals with a prevention focus are strategically inclined to avoid mismatches to desired end-states. Before, unidimensional approach-avoidance models were employed to explain similar phenomena but it remained relatively less beneficial. Not only a trait of individuals or things but also as a temporary orientation or context, promotion orientation is marked by strong ideals, sensitivity to gain situations, eager means (Higgins, 2002), risk-taking (Crowe & Higgins, 1997), creativity (Freitas et al., 2002), fun and cheerful emotions (Aaker & Lee, 2001) whereas prevention focus values duties, strong oughts, sensitivity to losses, vigilant means (Higgins, 2002), conservatism (Crowe & Higgins, 1997), self-control (Freitas et al., 2002) and need for security (Aaker & Lee, 2001).

The regulatory fit, however, is defined as “*the increased motivational intensity that results when there is a match between the manner in which a person pursues a goal and his/her goal orientation*” (Aaker & Lee, 2006; p.15). Deductively, certain goal orientations dictate certain means or manners to be employed. The dominant state of mind brings with it certain attitudes, reactions, actions and evaluations. As an example to the fit’s outcomes, Cesario and colleagues (2004) demonstrated increased confidence in attitudes and increased perceived persuasiveness of a communication or agreement (for a detailed review on ad/message persuasiveness see Florack et al., 2005).

The regulatory focus and fit theory has proved to bring with it a lot of use and benefits within the advertising research, both theoretically and practically. First, it determines what kind of information consumers search for in marketing communications or what kind of information is actually transferrable to the consumer. For example, in a study using two different brands of toothpastes manipulated to evoke prevention versus focus concerns, Wang and Lee (2006) showed that there is selective attention shown by people to product information that fit their regulatory focus, which shows that the regulatory focus is an important information filtering system of individuals.

Second, the existence of regulatory fit determines the extent to which consumers elaborate the message in the advertisement. Evans and Petty (2003) demonstrated that regulatory fit between message framing and individual goals leads to greater elaboration of the message.

Third, the manner in which the message is given in the advertisement becomes a critical tool. According to Cesario and colleagues (2004), promotion focused individuals are more prone to be persuaded by eagerly framed ads whereas prevention focused individuals are more prone to be persuaded by vigilantly framed ads. Overall, the regulatory focus and fit is critical in the persuasiveness of advertisement. For analyzing the goal compatibility, Lee and Aaker (2004) showed two different types of ads for the same grape juice, one of which was in promotion condition by signalling 'increased energy' whereas the other was in prevention condition by signalling 'prevention of diseases'. When combined with the matching regulatory goals of consumers: 'getting energy' (gain) versus 'preventing clogged arteries' (nonloss), the fit situation led to increased persuasion. Also the long dynasty of positive versus negative framing in advertising is found to be related with the regulatory focus mechanism. Promotion focus is found to be synergistic with positive framing and prevention focus with negative framing (Zhao & Pechmann, 2007). To sum up, whether be used in conjunction with existing theories or used in exploratory studies on advertisement effectiveness, the regulatory focus has been a very useful psychological construct tied with important variables like persuasiveness, elaboration, attitude strength as well as desired behavioral outcomes like willingness to buy and loyalty.

3 Research Objectives

Rather than combining the findings of involvement studies and regulatory focus studies in the literature, in this study it is attempted to measure their effects on advertisement effectiveness with the same stimuli (namely the same sample with the same ad). Our first hypothesis is that the product category involvement is positively related with willingness to buy, willingness to use and willingness to recommend the service advertised. In a similar vein, the second hypothesis is

that the ad involvement is also positively related with willingness to buy, willingness to use and willingness to recommend the service advertised.

Our third hypothesis coming from the regulatory fit literature states that regulatory fit condition of the consumer is positively related with purchase intention, usage intention, and WOM intention. The fit conditions are created experimentally by matching the primed mindset of the consumer with the advertisement created.

Last but not least, as the most important contribution, the exploratory hypothesis being investigated in this study is that the regulatory fit of the consumer is positively related with purchase intention, usage intention, and WOM intention regardless of their involvement level. This hypothesis will be tested by keeping involvement as a covariate.

These two literatures have not previously been combined to challenge each other. According to Lee and Aaker (2006), the evidence coming from previous empirical literature on the role of involvement as moderating variable in message-framing effects remains insufficient and lacks a parsimonious explanation. According to the same authors, there is a gap in determining the specific mechanisms underlying persuasiveness of different message framings and the found effects so far give unclear results. Regulatory fit has been found to increase involvement (Evans & Petty, 2003) but only task involvement has been measured and investigated before. It has not been researched together with another powerful indicator of advertisement effectiveness, which is product category involvement and/or ad involvement. Thus, this study is aiming to bring together regulatory fit effect and different types of involvement in order to see how far these alternative reasonings will work to explain the persuasiveness and initiating role of an ad message.

3.1 *Services vs. Products*

In this study, in contrast to the previous studies on regulatory fit, services advertisements have been used instead of full tangible products (e.g. sun lotion, orange juice which were used in previous studies). One of the reasons for such a design is that regulatory fit concept may work differently with services than products since services have been claimed to have different characteristics of intangibility, inseparability, heterogeneity, and perishability (Regan, 1963). Many scholars have focused on a general view of offerings or services rather than just limiting marketing theory with products. Shostack (1977) strongly advocates shifting away from concentrating on product marketing only. Levitt (1960) mentions, in "Marketing Myopia", the perception of what is provided by a company as a complete package of offerings to meet needs rather than only products and Vargo and Lusch (2004) specifically defines all offerings with a service-dominant logic. The recent service-dominant research motivated the

authors of this study to establish servicescapes as the contexts of the experiments.

Two servicescapes are especially chosen to counterbalance the gender related potential biases of each category: sports clubs and charity events. In addition, these categories are relatively neutral to promotion or prevention dominance. Because in the regulatory fit literature, there are categories appropriate for neither promotion nor prevention focus only. These include makeup, lipstick, luxury goods for promotion focus; insurance or condoms for prevention focus (Werth & Foerster, 2007). In this research, neutral categories have been sought for in order for the framing to be effective in both versions.

4 Method

For the objectives of our study, 2x2 experimental design has been applied.

Table 1: Experimental conditions

	<i>Promotion Focus Priming</i>	<i>Prevention Focus Priming</i>
Promotion Oriented Ad	REGULATORY FIT SITUATION	NON-FIT
Prevention Oriented Ad	NON-FIT	REGULATORY FIT SITUATION

Before conducting these manipulations and experimental conditions, first the product class involvement levels of the participants are measured (not manipulated). These scores are later used not as two different groups (high versus low involvement) but as an average value put into the analyses as they are.

After answering the involvement scales, the participants are faced with a page of telling their own life stories. This procedure is required for setting a promotion versus prevention focused mindset. Many alternative types of regulatory focus manipulations have been used in the literature. The participants have been primed to think of either the negative or positive things about a holiday, for a sun lotion ad study (Florack & Scarabis, 2006). In another experiment, the successive manipulation was telling the subjects to avoid mistakes because people below 60% success would lose some part of their maximum payment (Sengupta & Zhou, 2007).

The mostly used standardized manipulation method, which has also been employed in this study, is priming the ideals versus oughts (Higgins et al., 1994) in which the participants are asked to write three of their future and present hopes and aspirations (promotion condition) versus duties and responsibilities (prevention condition). The participants were instructed to give details and write sincerely as the questionnaires would be kept anonymous. In order for the effi-

ciency of the priming, it has been presented right before seeing the advertisement messages and not before.

As experimental stimuli, there are two sequential advertisements in each questionnaire, one for a sports club membership and one for a charity dinner. These two advertisements are randomly promotion-oriented advertisements or prevention-oriented advertisements. The promotional advertising messages have been designed to disseminate the message of feeling good and accomplishing a good end result (being healthy, giving to those who need it), while the messages of missing an important goal (facing diseases, heart problems; not paying back to the public) have been used for prevention focus.



Figure 1: The ad message manipulation example for two random groups

The order of sports club ad and charity event ads has been randomized and 12 differently ordered questionnaires have been randomly produced and distributed in order to rule out primacy and recency effects. Thus, two experimental situations have been gathered, two for fit condition and two for non-fit condition as explained in the above figure.

The dependent variables measured, on which the fit conditions are expected to have an effect, were: intention to buy, intention to use and intention to recommend to others (WOM). Those variables have been measured by using five items rated with 5-point Likert scales right after seeing the print ads.

The ad involvement levels of the participants are measured after each advertisement with a scale (Zaichkowsky, 1986). Therefore, the ad involvement scores are advertisement specific whereas the product involvement scores have been retrieved before being exposed to an advertisement.

One cautionary note here is that even though the regulatory fit has been found to create more positive feelings, its effects are independent of mood (Cesario et al., 2004; Avnet and Higgins, 2006). This has been controlled for by measuring mood right after evaluating the advertisements at the end of the experiment. Simple demographics have been gathered, too, like gender, age and socioeconomic status.

The questionnaires have been distributed to a student sample in the classroom setting. 15 of the questionnaires have been ruled inappropriate and deleted due to incomplete priming practice or incomplete filling. A total sample of 154 was eligible for the analysis.

5 Findings and Discussion

According to the descriptives, each of the four cells contained at least 23 subjects even after deletions. The mean age of the sample is around 22. Even though the range is 18-49, only 5 people were above 30 years of age. Gender is also balanced with a 72/82 ratio (M/F). The involvement items have been averaged to form involvement indices for each subject. The charity dinner category had higher involvement scores for both category involvement and ad involvement compared to the sports club membership category so it would be wise to conclude that charity is a highly involving subject for a university student sample. Also the willingness to buy, attend, and recommend scores were higher for the charity category.

Table 2: Comparative Means for Two Service Categories

<i>Mean Scores</i>	<i>Category Involvement</i>	<i>Ad Involvement</i>	<i>Willingness to buy, use, recommend</i>
Sports	5.17	4.34	4.12
Charity	6.29	5.36	4.73

A factorial ANCOVA has been run to test for the differentiating power of regulatory focus manipulation. The results show that the regulatory fit (interaction of the focus and the framing) is not significant for differentiating the desired outcome (ad efficiency). In addition to the fit conditions analyses, the promotion and prevention conditions have been analyzed separately, too. But neither the involvement levels nor the regulatory fit condition (fit v. nonfit) did vary according to the regulatory focus condition of the participants (promotion v. prevention). Therefore, our second hypothesis stating the regulatory fit effect on desired dependent variables is rejected.

Testing for the effects of product and ad involvement on desired outcomes, it has been found that the efficiency of the sports club ad was determined by both

category involvement and ad involvement and the charity event ad's effectiveness was determined by ad involvement only. Separate t-tests and regression equations confirmed the results. Therefore, the first hypothesis regarding the positive relation of involvement with desired outcomes is confirmed, with the exception of charity ad involvement. The involvement levels of the consumers for the charity event advertisement had no significant effect on their purchase intentions, usage intentions or WOM intentions.

In order to search for the comparative differentiating power of involvement and fit effects in both categories, an overall MANCOVA has been run with involvement levels and mood as covariates. However, the regulatory fit versus nonfit situations are not significant for determining the desired outcomes independent of the involvement levels of the consumers. Therefore, considering the regulatory focus of the consumer or the advertisement and efforts to match them are fruitless if the involvement of the consumers is not taken into account.

As expected, mood has been found statistically insignificant in determining the outcomes as well. Mediation analyses have been performed according to Baron and Kenny (1986) and no significant relationship has been observed.

The results shed a new perspective into the domain of advertising effectiveness, regulatory focus and involvement for also practitioners to benefit. For example, the statistical insignificance of the regulatory focus condition questions the necessity of priming the advertising audience in advance. In contrast, focusing on the involvement levels of the audience (for product class and for the specific advertisement) still remains the key for marketers and advertisers. Therefore, it can be pledged that it is more influential for marketers to create advertisement or perform segmentation based on involvement rather than trying to differentiate according to regulatory focus of their target audience or product type.

As a post hoc explanation for the relative ineffectiveness of charity events category involvement, it can be argued that probably the emotional basis of this category is better off manipulated via advertising and the advertising efforts had better work on increasing the ad involvement because there is a chance that regardless of their involvement level people are prone to be deciding on the basis of the effectiveness of the advertisement for charity events. A second explanation can be that the mean involvement of the sample for charity events is very high ($m=6.29$) compared to other variables and shows very little variance, therefore not enough variance is observed in order to test for its effects in a statistically significant way.

6 Limitations

First of all, in the literature the operationalization and measurement of the concept of regulatory focus is not yet fully mature. Due to its highly frequent usage by the developers of the theory and the following stream, the open ended duties,

responsibilities, dreams, aspirations priming has been employed. However, there are alternative methods like scrambled words or by giving two different directives for the same experiment. According to the sample, or experiment context, or the product category; alternative primings may function better, though this remains untested. In addition, rather than priming the regulatory focus, the RFQ scale can be employed for the measurement of regulatory focus and creating two (or three groups: promotion, prevention, equal) according to the scores.

Within the scope of this specific study other regulatory foci apart from promotion and prevention (like locomotion and assessment); regulatory focus's relation with mood and the various mechanisms through which regulatory fit is linked to the related outcomes are not investigated. Further, more complex research may incorporate these questions.

As the service sector was in the center of this study, future research in the domain of services is necessary in order to arrive at generalizations regarding the services sector advertisements and its relation with the effectiveness antecedents. In addition, exploratory research on the relative ineffectiveness of product class involvement compared to ad involvement for the charity event should be performed and studied further, due to its significance for the societal marketing concept.

Since this study carries the potential biases of a student sample from the same department of the same university, a different and/or larger sample can as well be used in further studies. Also, print advertisement was the main experimental stimuli due to many eases in classroom setting and paper-pencil studies. However, future research had better use visuals/photos or even real video advertisements conducted in lab settings.

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An Examination of The Effects of Message Content that Categorizes the Customer

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1 Introduction

Categorization of customers, in terms of market segmentation, is a fundamental point of departure for marketing. Many marketers have also been inspired by the idea that marketing messages should be tailored for selected target groups. Typically, with this approach, not only the product per se, but also the ways in which customers are addressed by marketing communications, should be adapted to various characteristics of the target group.

However, such messages are likely to encourage the receiver to make inferences about who the sender (i.e., the categorizer) thinks that the receiver is, in terms of category membership, because individuals are sensitive to how they are categorized by others. Indeed, others' categorizations of oneself are intimately linked to one's social identity (Burke, 1991; Jenkins, 2000). This is a hitherto neglected issue in marketing communications. Yet given that our beliefs about how others categorize us are important for our identity, and given that our *consumer* identities are increasingly important for our overall identity in a consumption society saturated with messages, it is expected that inferences about how we are categorized by marketers when we receive marketing messages are (a) easily evoked and (b) capable of influencing our reactions to the marketer's offer.

The purpose of this paper is to examine empirically if the message content is influencing the customer's reactions – with respect to both evaluations and behavioral intentions – when the content conveys categorization information. Examples of such information is when direct mail regarding an insurance product makes it clear for the receiver that he or she is assumed to be elderly, when the receiver of an ad for one particular pair of jogging shoes is addressed as a beginner, and when the arguments by the car salesperson leak assumptions that the customer may not afford one particular car.

In the light of the literature on individuals' reactions to how they are categorized by others, we acknowledge that others' categorizations of the individual can be either correct or incorrect (i.e., others' categories are or are not consistent with the individual's self-categorization), and that social categories typically have a valenced charge (e.g., “unemployed” and “rapist” are more negatively charged categories than “Olympic gold medal winner” and “Nobel Prize Laurea-

te"). More specifically, in the present empirical study, we are interested in the potential for differences in customers' evaluative reactions and behavioral intentions when a marketing message indicates that the customer has been categorized either (a) correctly, (b) incorrectly in a positively charged category, or (c) incorrectly in a negatively charged category.

An examination of this type, we argue, would contribute to the vast normative segmentation and marketing communications literatures, which are focused on how the marketer *should* categorize customers – thus with little attention devoted to the possibility that the customer's perceptions of the outcome of the categorization itself may affect the customer's reactions. The examination would also complement the scope of categorization research, in the sense that few studies have examined the outcome of being correctly or incorrectly categorized in this or that category from the categorized person's point of view – particularly when the source of the categorization inference is a message delivered by marketers.

2 Theory and hypotheses

Our conceptual framework rests on the notion of the individual's social identity. It is a set of meanings applied to the self in a social role; social identity defines what it means to be who one is, and it is developed and negotiated by comparisons with others – and by assessments of others' view of one's identity (Burke, 1991; Jenkins, 2000). Social categories play an important role in this process, because the individual is assumed to continuously assess his/her self-categorization vis-à-vis how others' categorize him/her (Barreto and Ellemers, 2003; Burke, 1991; Hogg and Terry, 2000).

Moreover, a central tenet in social identity theory is that to be seen by others (external categorization) in a manner consistent with one's stable self-views (internal categorization) reflects a fundamental need for psychological regularity and coherence. When a person is correctly categorized by others, it is therefore expected that this outcome should result in a positive state of mind for the categorized person. And when a person is incorrectly categorized by others it is expected that the outcome elicits unsettling feelings of insecurity, as well as distress and anxiety (Burke, 1991; Campbell and Troyer, 2007; Schmitt and Branscombe, 2001). It has also been argued that our appetite for correct external categorization in general leads to a strive to refute incorrect categorizations, given an opportunity to do so (Swann and Hill, 1982), and that individuals who sometimes intentionally choose to masquerade as members of a category to which they do not belong are likely to end up in a state of psychological strain and inner turmoil (Barreto and Ellemers, 2003; Clair, Beatty and Maclean, 2005). Our sensitivity for how *we* are categorized along an incorrect-correct dimension is typically also reflected in an interest in how *others* are categorized

in terms of right and wrong categories. Indeed, incorrect external categorization of characters in fictional stories, such as Nicolai Gogol's play *The Government Inspector* and the movie *Being There* with Peter Sellers, is a narrative element many find entertaining. In any case, the correctness of external categorization is likely to be positively associated with positive affect for the categorized person.

Further complexity, however, is added if it is acknowledged that social categories typically have a valenced charge (Howard, 2000). It might therefore be argued that an incorrect external categorization, in a positively charged category, can produce benefits for the individual. Yet negative reactions are expected even when the misclassification by others has been done in terms of a positively charged category (Burke, 1991; Campbell and Troyer, 2007). Despite the fact that a social category in which an individual is placed by another person may have a more positive charge than the individual's "real" category, the correctness of the categorization is thus assumed to override the valence of the category in producing a reaction to the categorization outcome.

Given this sensitivity to how we become categorized by others, particularly in terms of the correctness of the categorization, we assume that the correctness per se will inform our overall evaluations of the categorizer in a valence-congruent way. That is to say, a high level of congruency between the external categorization and the internal categorization will result in a relatively higher evaluation of the categorizer than a low level of congruency. In a situation in which the firm's categorization of the customer can be inferred by the customer from a marketing message, we therefore expect that the customer's perceptions of the correctness of the firm's categorization will have the following impact on the customer's attitude towards the firm:

H1: When the customer is correctly categorized, this outcome generates a more positive attitude towards the firm compared to when the customer is incorrectly categorized

Moreover, given a general positive association between customers' attitudes produced by marketing messages and behavioral intentions vis-à-vis the sender of the message, such as intentions to purchase the product covered by the message (Brown and Stayman, 1992), we also hypothesize the following:

H2: When the customer is correctly categorized, this outcome generates a higher level of behavioral intent vis-à-vis the firm compared to when the customer is incorrectly categorized

As already indicated, however, and given that categories are subject to variation in terms of their valenced charge (Howard, 2000), two types of incorrect

categorizations can be distinguished: the customer can be incorrectly categorized either in a positively charged category or in a negatively charged category. We assume that these two outcomes are not psychologically equivalent when it comes to the reactions they induce. More specifically, given that people have a basic desire to think favorable of themselves (Schrauger, 1975), and given a sensitivity that others also do so, we expect that it is more dissatisfying to be incorrectly categorized in a negatively charged category than in a positively charged category (Campbell and Troyer, 2007).

In a marketing setting – in which a message is providing clues for the customer of how he or she has been categorized – we therefore expect that the valence of the category affects the customer's reactions to an incorrect categorization. Such results were obtained by Söderlund (2011), a study showing that customers in a clothing store became more dissatisfied when they were incorrectly categorized as relatively obese as opposed to when they were incorrectly categorized as relatively slim. We thus hypothesize the following:

H3: When the customer is incorrectly categorized in a positively charged category, this outcome generates a more positive attitude toward the firm compared to when the customer is incorrectly categorized in a negatively charged category

H4: When the customer is incorrectly categorized in a positively charged category, this outcome generates a higher level of behavioral intent vis-à-vis the firm compared to when the customer is incorrectly categorized in a negatively charged category

3 Research method

3.1 Overview of the method

We used a between-subjects experimental approach in which each participant who received a marketing message was either (a) correctly categorized, (b) incorrectly categorized in a positively charged category, or (c) incorrectly categorized in a negatively charged category by the content of the message.

3.2 Stimuli

The message in our case was an e-mail inviting the receiver to the opening of a new clothing concept store. The sender was a fictitious fashion firm (“Vercelli”),

and the invitation promised an interesting evening with fashion shows, mingling with international models, and a free buffet.

The three categorizations were manipulated by using a design in which we (a) selected participants with a given social identity, and (b) used this identity to create one correct and two incorrect categorizations (representing two “possible selves” with different valence; cf. Markus and Nurius, 1986). More specifically, we selected business school students as our participants. For the correctly categorized participants, the invitation stated that “You who are a business school student are a part of our future. Therefore you are invited to celebrate the official opening with us”. For the incorrectly categorized participants allocated to positively charged category, we used the category “decision-maker in a firm”; for the incorrectly categorized participants who were allocated to a negatively charged category, the category “unemployed” was used.

Besides this difference, the content of the e-mail message, in total 172 words, was identical for all participants. We thus assumed – for a business school student – that it would be positively charged to be seen as a decision-maker in a firm and negatively charged to be seen as unemployed.

3.3 *Participants and data collection*

The three message versions were randomly allocated to the participants ($N = 150$; 80 men and 70 women; $M_{age} = 21.17$), who were undergraduate students enrolled in business administration courses. After having read the e-mail, the participants were asked to respond to a set of questionnaire items following the message.

3.4 *Measures*

To obtain a check variable for the manipulation of the *correctness of the categorization*, we asked the participants about the extent to which they perceived that the sender (the firm behind the invitation) had made a correct analysis of their identity. We used three items scored on a scale ranging from 1 (do not agree at all) to 10 (agree completely): “The company’s analysis of my identity was correct”, “The company was good at identifying my social category”, and “The company was right about who I am”. Cronbach’s alpha for this scale was .92.

For the evaluation of the firm, we measured *the attitude toward the firm* with four adjective pairs (bad-good, dislike-like, unpleasant-pleasant, and negative impression-positive impression) scored on a dimension ranging from 1 to 10 (alpha = .97). And with respect to behavioral intent, we measured *the intention to accept the invitation* with three adjective pairs (unlikely-likely, improbable-

probable, and impossible-possible), again scored on a 10-point scale ($\alpha = .94$). For each of these scales, we used the unweighed average of the responses to the individual items as a variable for the analysis reported below.

4 Analysis and results

4.1 Manipulation check

To assess the manipulation, we conducted a one-way ANOVA with treatment group as the factor and the perception of the correctness of the company's analysis of the receiver's identity as the dependent variable. The omnibus result (i.e., the results of the global F test) was significant ($F = 22.97, p < .01$). More specifically, this analysis resulted in a higher correctness mean for correctly categorized receivers ($M = 6.05$) compared to both incorrectly categorized receivers in the positively charged category ($M = 3.79$) and incorrectly categorized receivers in the negatively charged category ($M = 3.21$). The correctness means for the two incorrectly categorized receivers were significantly lower ($p < .01$ in both cases) than the mean for the correctly categorized receivers. Moreover, in the correctly categorized group the perception-of-correctness mean was significantly higher ($p < .05$) than the scale midpoint (i.e., 5.5), while this mean was significantly lower than the scale midpoint for the two incorrectly categorized groups ($p < .01$ in both cases). The manipulation thus behaved as intended.

4.2 Tests of the hypotheses

The resulting means (and standard deviations) for the attitude toward the firm and the intention to accept the invitation in the three conditions are presented in Table 1.

To test the hypotheses, we employed a one-way ANOVA in which treatment group membership served as the factor (we assessed the pairwise differences with the Scheffé test). In the first step, we performed the ANOVA with the attitude toward the firm as the dependent variable. The omnibus result was significant ($F = 19.71, p < .01$). The attitude for correctly categorized receivers ($M = 6.91$) was significantly ($p < .01$) higher than for incorrectly categorized receivers in the negatively charged category ($M = 4.74$), yet it was not significantly ($p = .57$) higher compared to incorrectly categorized receivers in the positively charged category ($M = 6.51$). Hypothesis 1 was thus only partly supported.

Table 1: Cell means for the three treatment groups (SD within parentheses)

<i>Reaction variable</i>	<i>Incorrectly categorized in negative category</i>	<i>Correctly categorized</i>	<i>Incorrectly categorized in positive category</i>
Attitude toward the firm	4.74 (1.87)	6.91 (1.73)	6.51 (1.97)
Intention to accept the invitation	4.53 (2.14)	6.70 (2.38)	6.13 (2.57)

As for the intention to accept the invitation, the omnibus F test produced a significant result ($F = 11.6, p < .01$). The intention for correctly categorized receivers ($M = 6.70$) was significantly ($p < .01$) higher than for incorrectly categorized receivers in the negatively charged category ($M = 4.53$), but it was not significantly ($p = .48$) higher compared to incorrectly categorized receivers in the positively charged category ($M = 6.13$). Hypothesis 2, then, received only partial support.

Moreover, and turning to the potential of a psychological asymmetry between the two ways of being incorrectly categorized, the attitude toward the firm for incorrectly categorized receivers in the positive category ($M = 6.51$) was significantly ($p < .01$) higher than for incorrectly categorized receivers in the negatively charged category ($M = 4.74$), thus supporting Hypothesis 3. In addition, the intention to accept the invitation for incorrectly categorized receivers in the positive category ($M = 6.13$) was significantly ($p < .01$) higher than for incorrectly categorized receivers in the negatively charged category ($M = 4.53$). Hypothesis 4 thus received support.

In sum, then, our results show that a correct classification was rewarded by a more positive attitude toward the firm, and higher intentions to act on the message, compared to an incorrect classification in a negatively charged category. A correct categorization, however, did not produce a (significantly) more positive attitude towards the firm and higher behavioral intentions to accept the invitation than an incorrect classification based on a positively charged category. Furthermore, the results show that the two types of incorrect categorizations were not psychologically equivalent – an incorrect classification in a positively charged category produced higher attitudes and intentions than an incorrect classification in a negatively charged category. Indeed, given the scale midpoint (i.e., 5.5) as a demarcation point between negative and positive evaluations, the positively

charged misclassification produced *positive* evaluations while the negative misclassification produced *negative* evaluations.

5 Discussion

Our results highlight that individuals are sensitive to how they are categorized by a sender of marketing messages: the ways in which the receivers were categorized did have an impact on their reactions. This is further underscored by the significant and positive zero-order correlations between the perceived-correctness-of-the-classification variable and the attitude toward the firm ($r = .51, p < .01$) and the intention to accept the invitation ($r = .42, p < .01$). It should be noted that our manipulation was subtle; the only difference in the messages for different treatment groups was the sender's assumption regarding the receiver's identity (i.e., business school student, decision-maker in a firm, or unemployed), which represented a small proportion of the total message. Yet these differences were enough to produce different reaction levels. In the light of theory on social identity, however, this sensitivity is not surprising, because in general we are concerned with the fit between the category to which we think we belong and others' views of our category membership.

In terms of implications for theory building activities, our results indicate that receivers' reactions to being allocated to this or that category in a marketing context needs more attention from researchers. This aspect, however, has hitherto been absent in research on segmentation and on advertising effectiveness within a managerial decision-making paradigm. Research on the unintended effects of advertising, in the aggregate, in terms of the impact on life at large (cf. Pollay, 1986), may also benefit from examining reactions to the categorization made by senders of messages. Presumably, prolonged exposure to an environment cluttered with messages, often signaling category membership, is likely to affect people's views of themselves and of others.

From a managerial perspective, our results imply that the sender should make sure that marketing messages are consonant with receivers' self-views. And if it is not clear what these self-views comprise, it may be advisable to avoid implicating any particular category. Indeed, many existing messages are of this type; they are highly ambiguous with respect to possible inferences about who the sender thinks that the receiver is (e.g., "Just Do It", "Make it happen", "Go beyond" etc). However, given that a misclassification in a positively charged category did not significantly reduce attitudes and intentions vis-à-vis a correct categorization, and in a situation in which the sender is unable to produce a correct categorization, our findings seem to imply that positively charged categories should be used. Yet in the light of some authors suggesting that deliberately upgrading the customer's status – in order to build liking – might be an

effective communication strategy (“You look lovely in this dress, madam!”), our results signal that social upgrading is not a panacea for boosting customers’ reactions.

Some limitations in this study are worth noting, and one of them has to do with the manipulation of how the sender’s categorization was revealed to the receiver. Although we believe that our manipulation was subtle, it was explicit in the sense that the message stated the sender’s assumptions in a straight-forward way (e.g., “You who are unemployed...”). However, many less explicit ways of “stating” such assumptions exist. For example, an ad in which a car is visually juxtaposed with a female driver may not only signal that the car is intended for women, but also that the sender assumes that the receiver is a woman. At the same time, more explicit ways exist, too – such as when it is revealed to receivers that the sender has personal knowledge about them (e.g., when a message is based on prior customer behavior from a loyalty card database). Further research should therefore examine the effects of various ways of revealing – implicitly and explicitly – assumptions about the receiver’s category membership.

Another limitation is our selection of categories for this study (business school student, decision-maker in a firm, and unemployed). Clearly, there are many other social categories. Further research should therefore examine the effects of being allocated to other categories. Such research should be informed by the fact that there is variation in how positive and negative various social categories are perceived to be. In Frable’s (1993) study, for example, obese people occupy a midpoint position in terms of negative evaluations, elderly people are less negatively evaluated, while criminals and homosexuals are more negatively evaluated. Further research may thus benefit from examining the effects of correct and incorrect classification of customers with categories from several positions on an evaluation continuum. It should be observed that persons who belong to negatively charged categories representing a minority (“deviant”, “different” or “marginal” persons) are particularly likely to be mindful in social situations; they are always “on” (Frable, 1993). Attention to the potential for dysfunctional effects on participants in a study is thus called for. Moreover, we examined a correct classification in terms of the individual’s “actual self”, yet it is possible to distinguish also an “ideal self” and an “ought self” (cf. Higgins, Klein and Strauman, 1985), which would allow for more complexity in the interplay between correct and incorrect classifications.

In addition, the setting selected by us, a party to celebrate the opening of a store, is a *social* offer in the sense that it is consumed together with other persons. This may have boosted thoughts about one’s category membership, and perhaps made the correctness aspect more important in comparison to other (less social) offers. It seems fruitful, then, to incorporate this aspect in future studies by examining offers with varying levels of social content in the consumption.

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Cultural Differences? Visual Metaphor in Advertising: Comprehension and Tolerance of Ambiguity in Four European Countries.

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1 Introduction

Not all types of visual metaphors are equally easy to understand. As can be seen in Figures 1 to 3, all ads make use of the same visual metaphor, which suggests that the exclusivity of a pearl is similar to the exclusive taste of the depicted chocolate. However, whereas Figure 1 visually juxtaposes the source (pearl) to the target (chocolate), and Figure 2 combines the target and the source in one pictorial element, Figure 3 only visualizes the source (and leaves the representation of the target to the imagination of the receiver). Figure 4 depicts the product as it is, ergo, without metaphor. The interpretation of the third visual representation of the same metaphor is thought to be more difficult than the first one because of the absence of the target. This typology of metaphors is based on Phillips and McQuarrie (2004) who claim that the more complex a visual structure, the more effective a metaphor is, given that the metaphor is understood. Phillips and McQuarrie labelled the structure in Figure 1 juxtaposition, in Figure 2 fusion and in Figure 3 replacement. It is expected that, if understood, replacements such as in Figure 3 prove to be the most effective type of metaphor. Since comprehension is considered to be a key issue for the effectiveness of metaphors in advertising, a number of studies are concerned with this aspect; however the operationalization of comprehension in these studies has left much to be desired. Van Mulken, Le Pair and Forceville (2010) worked with the self-assessments of comprehension of the individual metaphors, asking participants to indicate, first, if there was a comparison and, secondly, to verbalize the ground between target and source, but failed to find strong evidence for the inverted u-turn effect. Although Gkiouzepas and Hogg (2011, p. 119) asked participants to describe each photograph in the ads and used two scales to measure the degree of complexity of the metaphors, they did not explicitly measure whether their participants did really comprehend the message by asking them to specify the semantic ground that would link the target and the source for the shown metaphors. Furthermore, they use a limited set of stimuli. In this paper, we propose to assess comprehension using two measures: viewing time and correctness of interpretation.



1. Juxtaposition (J)



2. Fusion (F)



3. Replacement (R)



4. Without metaphor (Z)

Figure 1-4: Visual metaphor for chocolate pop Juxtaposition, Fusion, Replacement, Without metaphor

The pleasure of deciphering written ambiguous messages has already been posited by Booth (1961), when he claimed that the process of deciphering a message can strengthen the relation between the sender and the receiver, between the sender and the message and, hence, can provoke intellectual pleasure for the reader. Applied to advertisements, this assumption has been corroborated by the findings of research by McQuarrie and Mick (1992), Tom and Eves (1999) and Mothersbaugh et al. (2002) in which ads containing verbal rhetorical figures caused a higher degree of elaboration and were recalled and liked better than ads without rhetorical devices. This research was the empirical base for the Phillips and McQuarrie (2004) typology and the resulting predictions. These can also be explained in terms of Relevance Theory (Sperber and Wilson, 1986). According to this theory a deviant rhetorical figure is expected to retain the attention of the reader forcing him/her to spend more time deciphering the underlying message. His/her extra effort is rewarded with the pleasure of having been able to solve the puzzle, and results in higher appreciation of the advertisement (Tanaka, 1992). Following the elaboration likelihood model (ELM) (Petty and Cacioppo, 1986) the use of rhetorical figures in advertising has yet another advantage: the deviation in the figure induces readers to process the message via the peripheral route, but once they have succeeded in solving the

riddle, they find themselves having processed the message via the central route which is claimed to be more effective than the peripheral route. Finally, the use of images in advertising has the obvious advantage that there is no need for the translation for international campaigns, which permits a significant reduction of advertising production costs in global campaigns. On the other hand, this global approach strategy has been much discussed in the literature. The claim is that campaigns that have been adapted to the target cultures/country are more effective (James and Hill, 1991; Shao et al., 1992; Harvey, 1993). McQuarrie and Philips (2005, p. 17) found that metaphors presented in a pictorial form provoked stronger and more diverse positive inferences than their verbal metaphorical counterparts and more than verbal non-figurative equivalents. This corroborates the predicted positive effects of complex visual metaphors, as claimed by Phillips and McQuarrie (2004). However, Van Mulken, Le Pair and Forceville (2010) and Van Hoof, Van Mulken and Nederstigt (2011) found that the perceived complexity of visual metaphors correlates negatively with the likeability of ads. These findings seem to contradict the claims by Phillips and McQuarrie (2004). Yet, neither of these studies succeeded in operationalizing comprehension successfully. Since comprehension is claimed to play a mediating role, there is a strong need for a better assessment of the comprehension of visual metaphors.

Although there is an abundance of literature on cross-cultural comparisons of advertising appeals, very little is known about how consumers from different cultures process visual images in print advertisements. Besides, the studies that took a cultural dimension into account and measured it as mediating independent variable to explain the effects of advertisements in an experimental setting are very scarce (Taylor 2005, 2012; Okazaki, 2007). With the inclusion, in our study, of the Tolerance of Ambiguity (ToA) scale as cultural dimension that may mediate the comprehension and evaluation of visual metaphors in advertising, we hope to give insights in the consistency of attitudes across nations and cultures, as well as the consistency of the empirical results in theoretical frameworks in the field of cross-cultural advertising research.

1.1 *Tolerance of ambiguity*

Since the interpretation of visual metaphors requires consumers to deal with deliberately ambiguous puzzles, it might be the case that Tolerance of Ambiguity (ToA) mediates the effects of comprehension, interpretation and ad liking. In other words, a visual metaphor is a complex message containing implicit semantic relations – *in praesentia*: when both components of the metaphor, the image of the target and the source, are visualized in the ad; or *in absentia*: when only one image, the source, can be seen in a printed ad – that challenges receivers' ability to both recognize and resolve the ambiguous messages presented in

advertisements. Following this line of reasoning, it could be assumed that consumers with a low tolerance of ambiguity show a lower level of comprehension, and a less accurate interpretation of the content of the message. As a consequence, they will not like the ad as well as their more tolerant counterparts, and they will probably have a lower purchase intention. On the other hand, consumers with a higher degree of tolerance of ambiguity will experience ambiguous messages, such as visual metaphors, as a trigger to search for the solution that explains the content of the message. For the first group, ambiguous messages might have negative effects since the interpretation of the visual metaphor requires a choice or an appraisal made on the basis of implicit information. The underlying ambiguity might be perceived as a threat, presenting a “cognitive challenge insofar as one desires information that either does not exist or is inaccessible” (Arquero and McLain, 2010, p. 477). Whereas for the second group a positive effect of the same ambiguous messages might be expected since they experience ambiguity as a challenge, a game that tests their cognitive capacity and abilities to decipher ambiguous messages.

In our study, we followed the definition of Tolerance of Ambiguity proposed by Arquero and McLain (2010) in which this construct is defined as “the perception derived from a cognitive challenge caused by the lack of information or because such information is diffuse. The complexity and lack of familiarity or logic are contextual characteristics that entail a challenge for the observer, who must mesh the limited information with an understandable and coherent whole.” (p. 477).

Furthermore, this dimension has been proposed to impact outcomes including cross-cultural communication (Ruben and Kealey, 1979; Nishida, 1985; Kealey, 1996). Confirming the relevance of this dimension as discriminator between cultures, Lin and Malhotra (2012) suggested that Asian cultures are more disposed to accept ambiguity and irregularity as a natural phenomenon than, for example, the US culture. According to Furnham and Ribchester (1995, p. 194), on the other hand, this dimension is “likely to be highly correlated” with Hofstede’s (1984) cultural dimension ‘avoidance of uncertainty’ (UAI). Madzar (2005) went even further and posited that tolerance of ambiguity is a psychological proxy for Hofstede’s uncertainty avoidance dimension. Hofstede himself established an explicit relation between these two concepts when he posited that he uses the terms “uncertainty” and “ambiguity” as synonymous in his major work (see Hofstede 1984, p. 112). Given this and the fact that some evidence on the correlation between ToA and uncertainty avoidance has been found across cultures (Hofstede 1984; Peterson, Smith, Akande *et al.*, 1995, and Raltson *et al.*, 1995), we decided to include ToA as a mediating variable in this study.

According to Hofstede’s (1984, p.122) survey, Spain and France both have a high shared score on UAI (86/100), while Germany has a medium score on un-

certainty avoidance (65/100) and the Netherlands an even lower score (53/100). Thus and according to Hofstede's' results, it could be expected that samples of individuals coming from countries with a high UIA such as France and Spain and also Germany should show low scores on ToA, and, therefore, also show a lower degree of comprehension, a less positive ad liking and a lower purchase intention when interpreting visual metaphors. Individuals from countries such as the Netherlands with a low UIA are expected to have a higher ToA and are expected to be able to cope more easily with ambiguous and complex messages such as visual metaphors.

2 Research questions

In view of the above, the aim of the experiment was to answer the following research questions:

1. *RQ1. Are more complex visual metaphors less well understood than less complex metaphors?*
2. *RQ2. Do more complex visual metaphors elicit a better likeability and a higher purchase intention than less complex visual metaphors?*
3. *RQ3. To what extent does Tolerance of Ambiguity predict differences at national level?*
4. *RQ4: Does Tolerance of Ambiguity mediate the comprehension and the consumer effects of visual metaphors?*

3 Method

3.1 *Material: Stimulus Development*

Sets of four advertisements were created for 16 different product categories. Each set consisted of a juxtaposition (J), a fusion (F), a replacement (R) and an ad without a metaphor (Z). The products ranged from cars, washing machines and lollipops, to mascara. The ads contained a single verbal anchor: a fictive brand name. The product branch was indicated in the caption of the ad. Four lists of ads were created, so that each list contained only one of the four metaphor types of each set, in a different order. Each list contained 4 juxtapositions, 4 fusions, 4 replacements and 4 ads without metaphor. To train the respondent, a filler ad was used as the first item in each questionnaire. All images used were full colour and had been earlier used in the printed press or internet. Furthermore, all of them were based on real products that could be bought in all four countries. To ensure that the four different versions of the used stimuli were as

similar as possible to the images used in real advertisements, advertisements that real consumers might see, we manipulated the original product images with the professional version of Adobe Photoshop Version 7.0.1. (2010).

All versions of the 16 ads were pre-tested to ensure that the metaphors used were considered realistic and could be interpreted by average consumers in all four countries. The message of all ads, following Rossiter and Bellman (2005), was based on a unique selling proposition, or the Key Benefit Claim (KBC), of the products showed in all stimuli. For example, a picture of a mint leaf was used as a visual metaphor for conveying the superior flavour of a new toothpaste; while a picture of a pearl was used as metaphor for conveying the exclusive taste of a chocolate, and the image of a tornado was used to show the power of a drill hammer.

3.2 *Participants, Design, Measures and Procedure*

In all, a non-student sample of 485 participants (Dutch: 184, French: 99, German: 112, Spanish: 90) took part in an on-line experiment. Participants were between 10 and 79 years of age, with an average age between 26.68 and 31.13 years in the four countries (SD mean for all 4 countries = 13.00 years). The male/female ratio was 34/66 in the Netherlands and for the other three countries 74/31; the overall participant's male/female ratio was 54/46. In all four countries, a majority of the participants education ($M = 90.2\%$, minimum = 87.90%, maximum = 91.9) had reached a tertiary level of education. A within-subjects design was used to assess the three types of metaphors and the ad without metaphor as well as the mediation of Tolerance of Ambiguity; a between-subjects design was used to assess the influence of nationality.

Our variables were ToA (as independent context variable), Comprehension, Ad Liking and Purchase Intention (as dependent variables). ToA was measured on the basis of the validated construct by McLain (2009: 979) and Arquero and MacLain (2010). From their original 13 items of the ToA scale we selected eight items.

The Coefficient alphas were found to be questionable (.67); however the inter-item correlation mean of the 5 items was .287. This score is within the optimal range of .2 to .4 for short scales suggested by Briggs and Cheek (1986, p. 115). An independent-sample t-test was conducted to compare the tolerance of ambiguity scores for males and females. There was no significant difference in scores for males ($M = 4.01$, $SD = .93$) and females ($M = 4.00$, $SD = .90$); $t(483) = .15$, $p = .761$. The magnitude of the differences in the means (mean difference = .01, 95% CI: -.15 to .18 was near zero (eta squared = 1). A new compound variable ToA was created.

Comprehension was operationalized as viewing time in seconds and in a multiple-choice question, in which the respondent was to select the correct

ground for the metaphor (Correct Interpretation). Time was measured from stimulus onset, after the first mouse click, until the participant pressed the mouse button again to indicate that he or she had seen enough to move on to the questions. Consumer effects were operationalized in Ad liking and Purchase Intention. Ad liking was operationalized as “I have a good feeling about this advertisement” on a 7-point Likert scale. Purchase intention was measured using three items “I would consider buying this product”, “I will recommend this product to my friends”, and “This product could be something for me”. Coefficient alphas were found to be good for all 16 ads in all conditions and for all four languages ($M = .938$, $SD = 0.02$, $Max. = .961$, $Min. = .879$), therefore, a new compound variable Purchase intention was created. Three bilingual colleagues specialized in cross-cultural research checked and approved the translation of the Dutch questionnaire into French, Spanish and German.

Participants were approached via e-mail, in which they found a link to the website and a password to enter the questionnaire. It took approximately 15 minutes to fill in the questionnaire. Questionnaires were thus collected in a manner designed to minimise sample bias. Participants were informed that participation was completely voluntary and that all responses would remain anonymous.

The data were analyzed using Pearson bivariate correlations, One-way ANOVA, General Linear Model Repeated measures and Pairwise comparisons using SPSS version 19.

4 Results

Since the expected cultural differences at country level could have an influence on how the following analyses were conducted, we report the analysis of ToA first.

4.1 *Tolerance of Ambiguity (ToA)*

First, the relationship between Tolerance of Ambiguity and comprehension (as measured by viewing time and correct interpretation) was investigated using a Pearson bivariate correlation. For all types of metaphor, there were no significant correlations between ToA and comprehension ($n = 485$, the r values and p values were in between the range $r = -.080$ and $r = .084$; $p = .854$ and $p = .063$).

Secondly, a one-way between-groups analysis of variance was conducted to explore the differences between the four nationalities with respect to their Tolerance of Ambiguity scale. There was a statistically significant difference at the $p < .05$ level on ToA for the four groups $F(3, 481) = 6.53$, $p = .001$. Despite reaching statistical significance, the actual difference in mean scores between de

groups was quite small. The effect size, calculated using eta squared, was .04. Furthermore, a Bonferroni Post-hoc test indicated only a significant difference between the French group ($M = 3.68$, $SD = 1.00$) and both the Dutch ($M = 4.09$, $SD = .97$) and the German group ($M = 4.19$, $SD = .85$). Since the German, the Dutch and Spanish ($M = 3.96$, $SD = .64$) groups did not show any significant differences on the ToA scores, we did not use these scores as an index related to culture at country level, as a mediating cultural variable, in our analyses. Therefore we only used ToA scores at an individual level as a possible mediating variable on the effects of visual complexity.

4.2 *Comprehension: Viewing time*

A repeated measure analysis was conducted to assess the impact of type of metaphor and nationality on participants' scores on viewing time. There was no significant interaction between nationality and type of metaphor ($F(9, 1153,742) = .664$, $p = .742$, Wilks' Lambda = .988, $\eta^2 = .004$). However a small main effect of type of metaphor was found ($F(3,474) = 18.81$, $p < .001$, Wilks' Lambda = .894, $\eta^2 = .106$). Pairwise comparisons showed that all participants used significantly more time viewing the ads with fusions ($M = 7.36$ $SD = 2.65$) than with juxtapositions ($M = 7.02$ $SD = 2.65$; Main difference = .384, $p = .001$), replacements ($M = 6.97$ $SD = 2.62$; Main difference = .422, $p = .001$), and the ads without metaphors ($M = 6.62$ $SD = 2.51$; Main difference = .785, $p < .001$). No main effect of nationality was found ($F(3,476) = 3.73$, $p > .001$, $\eta^2 = .023$). A repeated measure analysis was conducted to assess the impact of type of metaphor and ToA on participants' scores on viewing time. There was no significant interaction between ToA and type metaphor ($p = .738$). However, a weak main effect of ToA on viewing time was found ($F(40, 439) = 1.549$, $p < .05$, $\eta^2 = .124$). However, Post hoc tests were not performed for ToA because at least one group had fewer than two cases.

4.3 *Comprehension: Correct Interpretation*

A repeated measure analysis was conducted to assess the impact of type of metaphor and nationality on participants' scores on their interpretation. There was no significant interaction between nationality and type of metaphor ($F(9,116,911) = 1.84$, $p = .056$, Wilks' Lambda = .966, $\eta^2 = .011$). However, a small main effect of type of metaphor was found ($F(3,479) = 45.15$, $p < .001$, Wilks' Lambda = .791, $\eta^2 = .209$). Pairwise comparisons showed that all participants interpreted ads with juxtapositions ($M = .83$ $SD = .20$) significantly better than ads with fusions ($M = .745$ $SD = .26$; Main difference = $-.087$), replacements ($M = .724$ $SD = .265$; Main difference = $-.108$) and the versions without metaphors ($M = .665$ $SD = .319$, Main difference = $-.177$). A small main effect

of nationality was found ($F(3, 4.21) = 45.15, p < .05, \eta^2 = .026$). A Bonferroni Post-hoc test showed that the Dutch participants ($M = .759, SE = .011$) understood all metaphors better than the French participants ($M = .697, SE = .014$; Main difference = $-.062$). No differences were found between the Spanish, German and Dutch on their interpretation of all three types of metaphors. Finally, a repeated measure analysis was conducted to assess the impact of type of metaphor and ToA on participants' scores on participants' correctness of their metaphor interpretation. There was no significant interaction between ToA and type of metaphor ($p = .881$) neither a main effect of ToA on the interpretation of the types of metaphor ($p = .818$).

4.4 *Ad liking*

A repeated measure analysis was conducted to assess the impact of nationality and type of metaphor on participants' scores on ad liking. There was a significant interaction of nationality (Dutch, French, German and Spanish) and type of metaphor ($F(9, 1165,911) = 1.965, p < .05, \text{Wilks' Lambda} = .964, \eta^2 = .310$). A one-way between-groups analysis of variance was conducted to explore the differences between the four nationalities on the appreciation of the 4 types of metaphors. Only Juxtapositions showed a statistical significant difference between the nationalities $F(3, 4,971) = p < .005, \eta^2 = .031$. Post-hoc comparisons using the Bonferroni test indicated that only the German ($M = 4.37, SD = 1.00$) and Spanish ($M = 4.37, SD = 1.13$) group liked juxtapositions significantly better than the French respondents ($M = 3.92, SD = 1.03$; Main difference = $-.45$ in both cases). The Dutch respondents ($M = 4.08, SD = .98$) did not differ significantly from the Spanish, the French and the German respondents, neither did the German from the Spanish respondents. No significant differences on ad liking were found between the four groups of respondents for fusions, replacements and ads without metaphor.

We found a strong significant main effect of type of metaphor on Ad liking ($F(3,479) = 71.763.89, p = .000, \text{Wilks' Lambda} = .690, \eta^2 = .310$). Pairwise comparisons showed that the Ad Liking for replacements ($M = 3.66, SE = .050$) and ads without metaphor ($M = 3.836, SE = .048$) was significantly lower than that for juxtapositions ($M = 4.18, SE = .049$) (mean difference = $-.352, p = .000$ and mean difference = $-.519, p = .000$) and fusions ($M = 4.36, SE = .048$) (mean difference = $-.526, p = .000$ and mean difference = $-.692, p = .000$).

A repeated measure analysis was conducted to assess the impact of type of metaphor and ToA on participants' scores on Ad liking. There was no significant interaction between ToA and type of metaphor ($p = .803$) on Ad liking nor a significant main effect of ToA ($p = .104$).

4.5 Purchase intention

A repeated measure analysis was conducted to assess the impact of nationality and type of metaphor on participants' scores on purchase intention. The interaction between type metaphor and nationality was not statistically significant ($F(9, 1165,911) = 1.268, p = .250$, Wilks' Lambda = .977, $\eta^2 = .008$). We found a strong significant main effect of type of metaphor on Purchase intention ($F(3,479) = 42.89, p = .000$, Wilks' Lambda = .788, $\eta^2 = .212$). Pairwise comparisons showed that the purchase intention for replacements ($M = 3.37$ $SD = 1.06$) and ads without metaphor ($M = 3.44$ $SD = 1.03$) was significantly lower than that for juxtapositions ($M = 3.80$ $SD = 1.04$) (mean difference = $-.426, p = .000$ and mean difference = $-.378, p = .00$) and fusions ($M = 3.82$ $SD = 1.04$) (mean difference = $-.439, p = .000$ and mean difference = $-.392, p = .000$). We found a strong significant main effect of nationality on purchase intention ($F(3, 481) = 5.355, p = .001, \eta^2 = .032$). Pairwise comparisons showed that Spanish participants had a significantly higher purchase intention ($M = 3.87$ $SD = .087$) for all types of metaphors than the Dutch ($M = 3.45$ $SD = .061$; mean difference = $-.421, p = .000$) and German participants ($M = 3.64$ $SD = .078$; mean difference = $-.234, p = .046$). A repeated measure analysis was conducted to assess the impact of type of metaphor and ToA on participants' Purchase intention. There was no significant interaction between ToA and type of metaphor ($p = .560$) nor a significant main effect of ToA ($p = .387$).

5 Conclusion and discussion

Our third research question concerned the extent to which the four countries studied differed on the cultural dimension ToA. Since the expected differences for ToA at country level did not occur, our results are not in the line with the findings of Peterson, Smith, Akande *et al.* (1995), Raltson *et al.* (1995) and Hofstede (1984). Neither have we found unequivocal evidence that would support a likely correlation between the dimensions of UAI and ToA that was posed in the literature (Furnham and Ribchester, 1995, p. 194; Madzar 2005, Hofstede 1984, p. 112).

Hofstede found that the scores of France and Spain were slightly higher than those of Germany and considerably higher than those of the Netherlands on Uncertainty Avoidance. The scores of the former two were well above average, Germany can be seen as average country and the Netherlands were below average. However, the results obtained in our study are not in line with the expected cultural differences at country level found by Hofstede in the late sixties of the past century. From the four countries, the French group of participants was the only one that showed ToA scores conform our expectations based on UAI scores

of Hofstede. Furthermore and not in line with Hofstede's findings the Spanish participants did not show a low ToA score, neither did the German participants.

In our study these two groups of participants did not differ from each other at all, or from the Dutch participants. These three groups of participants all showed a quite neutral ToA score. Overall, we did not find enough and robust empirical evidence that would support a relation between ToA and nationality. However, we did find some partial evidence for differences at country level, with regard to the processing of visual metaphor in advertising: the Dutch performed better on metaphor interpretation than French participants, the French liked all types of metaphors less than the German and the Spanish participants, and the Spanish showed a higher purchase intention for all types of metaphor than the German and Dutch. However, these differences were overruled by the overwhelming impression of cultural convergence: the general pattern in the comprehension and consumer effects of visual metaphor in advertising is similar in all four countries. Based on our findings, we suggest that the role of the cultural dimension in the processing of visual metaphor is fairly limited.

The answer to the question of whether ToA mediates on the reader's interpretation and consumer effects of visual metaphors (RQ4) is that ToA does not influence neither comprehension nor ad liking or purchase intention. In other words, there does not seem to be a direct relation between ToA and type of metaphor. It is probably the nature of the comparison in terms of novelty or unexpectedness (whether it is a bike compared to a tiger or a bike is compared to a fish) and not the opaqueness of the structure of the metaphor itself that will allow discriminating between consumers with a high ToA and those with a low ToA. Moreover, the questions in the validated scale that were used to measure ToA all had issues of 'uncertainty' in common, whereas ambiguity in rhetorical terms, as is the case with visual metaphors, has more to do with maintaining several interpretations at the same time, a different concept of insecurity.

Our first research question (RQ1) concerned the effect of the complexity of the different types of metaphors on comprehension. It is remarkable that consumers took more time looking at fusions (the theoretically a lesser complex type of metaphor according to Phillips and McQuarrie (2004)) than at replacements. This is an indication that most of our respondents probably did not recognize replacements as visual metaphors; they simply interpreted the depicted object as a target instead of a source (and thus interpreted the ad in a similar way as ads without metaphor). With regard to the interpretation of the visual metaphors, we saw that juxtapositions (the theoretically least complex type of metaphor) were understood better than fusions and replacements. Juxtapositions were also better understood than ads without metaphors, and this is odd. However, we think that since the majority of stimuli in our experiment concerned metaphors, respondents were led to believe that even ads without metaphors contained met-

aphors. This was a confounding factor that could have led to an over-interpretation of the images that did not contain a metaphor but just a representation of the product itself.

With regard to Ad liking (RQ2), we found that, despite the fact that juxtapositions were better understood than fusions; fusions were the preferred type of metaphor. Apparently, full comprehension is not the only factor that led to an increase in Ad liking. One might wonder whether it is the capacity of generating more inferences (McQuarrie and Phillips, 2005) that lead to the preference for fusions. However, to accept this explanation, we would have expected ToA to play a mediating role here, which is clearly not the case. Another explanation may be that fusions, apart from offering a higher interpretative challenge to the viewers, also offered more aesthetical pleasure. The fact that the target and source are fused together to create a single new object that does not exist in reality may have aroused not only cognitive pleasure, but also aesthetic admiration for the design of the ad. There is no difference between juxtapositions and fusions with regard to purchase intentions (RQ2): both have a similar effect. Overall, our findings are in line with the 'inverted u-curve' effect found in other studies (Van Hoof, Van Mulken and Nederstigt, 2011). Of the three types of metaphors, replacements were the least preferred and lead to a lower purchase intention. These results were also reflected in the time it took our participants to look at replacements. Replacements had a shorter viewing time than the other two types of metaphors. A possible explanation for these findings would again be that our participants did not recognize replacements as a type of metaphor. They interpreted this type of metaphor in the same way as ads without a metaphor in which only the product itself was depicted (see Figure 4). In both cases they simply took the image in the advertisements for what it appeared to be: a chocolate is a chocolate, and a pearl is a pearl. Therefore, this finding corroborates the inverted u-turn hypothesis in which weak and strong stimuli are less effective than medium ones (Yerkes and Dodson, 1908): failing to recognize and thus understand the metaphor, our participants did not appreciate replacements. And at the same time, this finding contradicts the assumption that the most complex type of metaphor could cause the best effects on consumer's response (Phillips and McQuarrie, 2004). If we add this to the fact that juxtapositions were best understood, and that both fusions and juxtapositions led to a higher purchase intention, we have found more than partial confirmation for the inverted u-turn hypothesis. What still remains to be explained is the preference for fusions. Therefore further research should develop a scale that measures consumer's aesthetical evaluation of metaphors and verify whether it mediates the effect of metaphor on consumer response.

5.1 *Limitations of the research and recommendations*

As with any empirical research, this study has its limitations. Although the sample is relatively large and includes various countries and a large set of different products and metaphors, it is limited to four Western European countries. Furthermore, education level in all four groups was higher among the sample than in the average population. The role of ToA might be different for other market environments and countries. Future research may include other social strata and countries, worldwide, perhaps countries with a stronger variation and less correlation regarding the Hofstede's dimensions.

Two recommendations are relevant for practitioners. First, it seems that fusions are the better option for global advertising campaigns since this type of visual metaphor was both better liked and provoked (together with juxtapositions) the highest purchase intention. Finally, the same type of metaphor can be a valid option for campaigns to be launched in all four countries investigated in this study.

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The Online Behavioural Advertising Icon: Two User Studies

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1 Online Behavioural Advertising

New Internet technologies provide the possibility of automated tracking of consumers' Internet behaviour. Such tracking is used to create user profiles for the purpose of displaying advertisements that fit the interest of these individuals (e.g., Goldfarb and Tucker 2011; McDonald and Cranor 2010). Confident in the success of such targeted ads, businesses invested heavily in online targeted advertising and this spending is expected to increase. However, this marketing strategy, also referred to as behavioural targeting or "online behavioural advertising", is heavily debated. The debate mainly focuses on the protection of user privacy. In response to (upcoming) governmental privacy regulations to protect consumers, the Dutch industry recently introduced the "cookie-icon" as a form of self-regulation (see Figure 1) to denote online behavioural advertising. This cookie-icon is displayed in online behavioural advertisements and aims at warning Internet users that particular online advertisements are based on their past surfing behaviour.

The current study focuses on online behavioural advertising and the cookie-icon, and the aim is threefold. The first aim of this study is to investigate whether consumers are aware of the cookie-icon and to investigate their understanding of the meaning of this icon. In reaching this aim, it is also investigated whether people have knowledge about online behavioural advertising in general, because the cookie-icon is introduced to inform people about this type of advertising. We also give insight into their attitude towards online behavioural advertising, because this can give an indication whether people think a cookie-icon is a good initiative.



Figure 1: Example of the cookie-icon

Theoretically, the cookie-icon can be interpreted as *disclosure* or *forewarning*. Based on forewarning literature it is expected that the cookie-icon is only effective when the user has existing knowledge of the icon and online behavioural advertising as a marketing technique (i.e., *persuasion knowledge*). Only then users might understand what the cookie-icon informs them about, which enables them to cope with the information and respond to it effectively (e.g., Friestad and Wright 1994). Examples of such coping strategies are adjusting cookie preferences and avoiding behavioural targeted advertisements.

The second aim of our study is to examine whether the cookie-icon is able to influence such coping strategies. Since the cookie-icon is relatively new, we expect that individuals do not have sufficient levels of knowledge for the cookie-icon to be effective as a warning and claim that a short explanatory label (i.e., “this ad is based on your surfing behaviour”) should accompany the icon to be effective in terms of cookie-icon awareness, understanding and initiating coping strategies.

The third aim of the study is to examine whether displaying a forewarning, using the cookie-icon, with or without explanatory label, results in less persuasion of the targeted ad. Previous research demonstrated that forewarnings help consumers to cope with persuasive messages (e.g., Jacks and Devine 2000). As Wood and Quinn (2003) stated, “forewarned is forearmed”, meaning that if users know the persuasive intent of a message, they will be more difficult to persuade. Therefore, displaying a cookie-icon could help Internet users to recognize the persuasive intent of the targeted ad, resulting in less persuasion. However, no specific hypotheses are formulated about how the cookie-icon influences persuasion. The cookie-icon is a very new disclosure, and therefore it might not inform consumers about the behavioural advertising technique at all, meaning that it will not warn them and consequently will not alter persuasion.

Also, literature suggests that a certain amount of attention is needed to process the disclosure and this attention might compete with the attention for the promotional message and the brand itself (Morris, Mazis, and Brindberg, 1989), reducing persuasion regarding cognitive responses. The format of the disclosure (i.e., using text and/or visuals) might distract consumers’ attention from the advertisement itself to the cookie-icon, diminishing the processing of the targeted ad, leading to reduced recall of the brand and processing of the brand claims.

However, if the cookie-icon is noticed and consumers (positively) explain that the online ad is actually based on their personal interests (i.e., not interpreting the cookie-icon as a forewarning), this might increase their level of involvement with the brand and the ad, resulting in positive beliefs regarding brand and ad relevance. Therefore, specifically regarding cognitive responses (i.e., operationalized as brand awareness and brand and ad relevance), we do not predict a direction of the effect, but will examine this, to see how the cookie-icon affects the processing of the promotional message and the brand.

Regarding other persuasion variables, prior studies indicate that consumers lower their brand and ad evaluations after learning about controversial marketing tactics companies use to persuade them (Lee 2010; Milne, Rohm, and Bahl 2009; Wei, Fisher, and Main 2008). Therefore, it could be expected that disclosing targeted ads by means of the cookie-icon negatively influences attitudes toward the brand and the online ad. Consumers can be warned by the cookie-icon, which might activate their persuasion knowledge, resulting in resistance to the persuasive message. Negative evaluations of the advertisement might also transfer to the evaluation of the website on which the disclosure is presented. But again, these effects on evaluative variables, can only occur under the condition that the cookie-icon is informative, warning Internet users about the persuasion technique of behavioural advertising and altering their persuasion knowledge, otherwise the icon does not alter persuasion. Therefore, no direction for the effects on affective responses are formulated either.

2 Study 1

The central research question of the first user study is what Dutch Internet users know about online behavioural advertising and cookies and how they feel about these practices. More specifically, the survey gives insight into 1) the level of online behavioural advertising and cookie knowledge among Internet users, 2) the attitudes towards online behavioural advertising, cookies and the cookie-icon initiative.

2.1 Method

2.1.1 Respondents and procedure

Respondents were 18 to 63 years old ($N = 202$, $M_{\text{age}} = 31.3$, $SD = 11.26$, 48% female). They were rather highly educated (46% had a university degree), and all were regular Internet users. They were approached by e-mail. This e-mail contained a link to the online survey, which consisted of three parts. In the first part background variables were measured. In the second part, respondents were asked what they know about online behavioural advertising and cookies, fol-

lowed by a definition and a real example of online behavioural advertising. Then, questions regarding their experience with and attitude toward online behavioural advertising were asked. Finally in the third and focal part of the survey, a picture of the cookie-icon was shown (see Figure 1) and respondents were asked about their familiarity with the icon. This was followed by an explanation of the cookie-icon, describing that it is an initiative of the advertising industry and so on, and a demonstration of how the cookie-icon works, showing that clicking on the icon provides consumers with the ability to exercise choice with respect to the collection and use of online data for online behavioural advertising purposes. Finally, attitude toward the icon was measured. The survey was fielded between December 13th and December 30th, 2011. Respondents did not receive any compensation for their participation in the study.

2.1.2 Measures

Knowledge of online behavioural advertising was measured with eight items based on McDonald and Cranor (2010) in random order. Respondents were asked whether they thought the statements about online behavioural advertising were true or false after which the number of correct answers were calculated. Two examples are: "When I visit a website, the same ads are displayed as when someone else visits the website", and "companies can only save information about my surfing behaviour when I give them permission".

Attitude towards online behavioural advertising was measured with ten items based on Turow et al. (2009) and McDonald and Cranor (2010). Respondents had to indicate to what extent they totally disagree (1) to totally agree (7) with the statements. Some examples are: "I prefer websites to display ads that are targeted to my interests", "I think it is okay to see ads that are based on my surfing behaviour", and "I prefer ads that are in line with my interests instead of arbitrary ads".

Knowledge of cookies was measured with eight true/untrue statements in random order (McDonald and Cranor, 2010). Five statements were untrue. Correct answers were coded 1, incorrect answers were coded 0. Examples of statement are: "Cookies are used to save your browsing history" and "If you do not regularly remove cookies from your computer, the computer will slow down".

Familiarity with the cookie-icon was first measured by asking whether the respondents had or had not seen the icon in an online ad or on a website before. Next it was explained how the cookie-icon works, demonstrating that one can click on it and that it redirects to a website on which one can adjust the online behavioural advertising preferences for individual companies. Three statements regarding the cookie-icon initiative followed this demonstration, For example : "I am familiar to this Dutch initiative" and "I already heard about this initiative,

but did not know that it was already used". For each statement the respondents had to indicate to what extent they disagree (1) or agree (7) with the statement.

Attitude toward the cookie-icon was measured with 5 statements. Respondents had to indicate to what extent they disagree (1) or agree (7) with the statements, for example: "I think the cookie-icon is a good initiative". Higher scores represent more positive evaluations of the cookie-icon.

2.2 Results

2.2.1 Knowledge of Online Behavioural Advertising

Results showed that people have a pretty good knowledge of online behavioural advertising in general. In total 86.17% of the questions were answered correctly. People often (only 28.43% correct) falsely assumed that companies have to ask permission to save any kind of information about the visitors of their website. They also often falsely assumed that companies were punishable when they collect and save information about individuals' Internet behaviour (only 25.89% correct).

2.2.2 Attitude towards online behavioural advertising

Respondents are relatively neutral about online behavioural advertising ($M = 4.11$, $SD = 1.12$). A factor analysis demonstrated that respondents' attitudes toward online behavioural advertising are clearly divided in an attitude towards targeting of advertising based on surfing behaviour and in an attitude towards privacy violation by online behavioural advertising. Surprisingly, respondents were more negative about the first than the second set of attitudes. Respondents' attitude toward online behavioural advertising was not correlated to their knowledge of online behavioural advertising ($r = 0.03$, ns).

2.2.3 Knowledge of cookies

People's knowledge of cookies was considerably lower than their knowledge of online behavioural advertising (59.26 % correct answers). The statement with the most incorrect answer was the statement that cookies are used to save your browsing history (75.13% incorrect) and the statement that the computer will slow down when cookies are not removed regularly (68.52 % incorrect). Half of our respondents thought that cookies are reducible to individuals (53.81% incorrect) while this is not the case.

2.2.4 Familiarity with the cookie-icon

The respondents were not familiar with the cookie-icon: 94% had not seen the icon in an online ad, and 93% had not seen the icon on a website before. After a demonstration of how the cookie-icon works, still only 7% indicated that they were familiar with the cookie-icon initiative (see table 1). Also, about 30% of the respondents even indicated that they had never heard about a website where one can adjust online behavioural advertising preferences.

Table 1: Familiarity with the cookie-icon

<i>Statement</i>	<i>M</i>	<i>SD</i>	<i>Disagree</i>	<i>Agree</i>
I am familiar with this Dutch initiative	1.80	1.60	81%	7%
I am familiar with such an initiative, but did not know that it was already effectuated	2.02	1.83	77%	9%
I have never heard of websites where you can adjust cookie preferences (Reversed)	3.40	2.48	50%	31%

Table 2: Attitude toward the cookie-icon

<i>Statement</i>	<i>M</i>	<i>SD</i>	<i>Disagree</i>	<i>Agree</i>
I think the cookie-icon is a positive initiative	5.97	1.34	5%	75%
I think that it is positive that users determine themselves who is and who is not allowed to use information about their online behaviour	6.20	1.16	2%	80%
The cookie-icon is a good initiative. It is about time that advertisers are stopped to use information about online behaviour	5.27	1.55	7%	47%
The cookie-icon is unnecessary (reversed)	2.16	1.32	67%	3.0%
It gives me a good feeling that users now can see which companies use information about online behaviour	5.60	1.47	6%	61%

2.2.5 Attitude toward the cookie-icon

In general respondents were rather positive about the cookie-icon as an initiative to inform web users about targeted ads (see table 2). About 75% indicated that the cookie-icon is a good initiative. Interestingly, about 45% agrees that the icon is a positive initiative, because advertisers should be stopped to use online data to target ads. This indicates that the sample is somewhat negative about the use of online data for online advertising purposes. It was also shown that respondents with a positive attitude toward online behavioural advertising and more knowledge on cookies were more negative about the cookie-icon ($r = -.41, p = .00$).

3 Study 2

The second user study builds upon the first study by testing the consequences of displaying the cookie-icon in an experiment. As the first study demonstrated that Internet users are unfamiliar with the cookie-icon one may question its effectiveness when added to online advertising. The aim of the experiment was therefore 1) to test the effects of the cookie-icon in terms of brand, ad, and website responses, and to relate these effects to (2) awareness and understanding of the displayed cookie-icon, and (3) coping strategies (i.e., how the recipient responds to the online targeted ad). The experiment was designed in cooperation with the Dutch Dialogue Marketing Association (DDMA) and their Interactive Marketing Committee and consisted of several conditions that vary in showing the cookie-icon (or not) and in adding an explanatory label (or not).

3.1 Method

3.1.1 Respondents and procedure

Respondents ($N = 326, M_{\text{age}} = 33.71, 58\%$ female) were asked to imagine the following scenario:

“Imagine that you are searching the web for a possible vacation destination for next summer. After visiting several websites comparing airlines, travel agencies and hotels, you close all websites. You need to do some groceries, and before you leave the house you quickly open a weather forecast site to check the current weather in your town. This website is shown on the next screen”.

The respondents were then asked to view a webpage on which a targeted ad was shown, that was based on their alleged surfing behaviour as described in

the scenario. The ad was for 'FlyLo', a fictitious airline company to avoid confounds with pre-existing brand attitudes. Depending on the experimental condition, this ad either contained no cookie-icon (control condition), a cookie-icon (cookie-only condition), or a cookie-icon with an explanatory label (i.e., 'this ad is based on your surfing behaviour'; cookie-label condition). After viewing the website, dependent variables were measured and respondents were thanked for their participation.

3.1.2 Measures

Cookie-icon awareness was measured by showing the icon and asking respondents whether they noticed this icon on the website (40% said yes).

Cookie-icon knowledge was measured with an open-ended question, coded into 4 categories (0 = correct answer, 1 = somewhat correct answer, 2 = incorrect answer, 3 = 'no idea').

Coping strategies were measured with statements that reflect the coping strategies identified by Jacks and Cameron (2003). Respondents were asked to rate the likelihood (1 = very unlikely, 7 = very likely) of adopting 17 possible reactions to the cookie icon that reflected 8 theoretical coping strategies in total (i.e., *attitude bolstering*, *counter arguing*, *negative affect*, *selective exposure*, *social validation*, *source derogation*, *assertions of confidence*, and *acceptance*). *Ad awareness* was measured by asking respondents whether they noticed an ad (95% said yes).

Unaided brand recall was measured by asking respondents which brand the ad was for, and *aided brand recall* was measured with a multiple-choice question (correct answers were coded 1, incorrect answers were coded 0).

Attitude toward the brand, *attitude toward the ad*, and *attitude toward the site* were measured with the same 3-item 7-point semantic scale (e.g., *negative/positive*, *unfavourable/favourable*; $M_{\text{brand}} = 3.42$, $SD = 1.23$, $\alpha = .94$; $M_{\text{ad}} = 3.00$, $SD = 1.27$, $\alpha = .86$; $M_{\text{site}} = 5.12$, $SD = 1.12$, $\alpha = .84$).

Brand relevance, *ad relevance*, and *website relevance* were also measured with the same 5 items on a 7-point scale (e.g., the brand/ ad/ website is meaningful to me', 'the brand/ ad/ website is useful for me', = *totally disagree*, 7 = *totally agree*; e.g., Zaichowsky 1985; $M_{\text{brand}} = 2.41$, $SD = 1.36$, $\alpha = .95$; $M_{\text{ad}} = 2.32$, $SD = 1.38$, $\alpha = .92$; $M_{\text{site}} = 4.60$, $SD = 1.39$, $\alpha = .94$).

3.2 Results

3.2.1 Awareness and understanding of the cookie-icon

First, it was tested whether respondents noticed the cookie-icon. Analysis showed that the icon was somewhat more often noticed in both cookie-icon conditions (both 45%) than in the control condition, in which 32% of the respondents (incorrectly) claimed to have noticed the icon ($Chi^2(2) = 5.29, p = .07$). No significant difference was found between the cookie-only and the cookie-label condition.

Further analyses were based on the respondents that correctly indicated that they noticed the icon and were aware of the ad on the website ($N = 168$). Then it was tested whether there were differences in the level of understanding. Results showed that understanding of the cookie-icon was significantly different between conditions ($Chi^2(2) = 14.41, p = .03$). In the cookie-only and cookie-label condition an equal amount of respondents did not have a clue about the meaning of the icon (36% and 38%), which did not differ a lot from the control condition (43%). However, in the cookie-label condition 18% gave a complete and correct answer to the question what the cookie-icon stands for, as compared to only 4% in the cookie-only and control conditions. Thus, the cookie-icon in itself seems to be sufficient to be noticed, but seems to be insufficient in raising awareness for the fact that the ad is a behavioural targeted ad.

3.2.2 How the cookie-icon influences coping strategies

Second, a MANOVA with coping strategies as dependent variables and the three experimental conditions (cookie-only, cookie-label and control condition) as independent variables demonstrated that respondents do not cope differently between conditions. However, when a comparison was made between respondents who had an understanding of the cookie-icon (cookie-icon knowledge coded 0 and 1) and respondents who had no or an incorrect understanding of this icon (cookie-icon knowledge coded 2 and 3), a MANOVA revealed that the understanding of the cookie-icon affects several coping strategies (Wilk's Lambda $F(8,153) = 3.35, p < .001, \eta^2 = .15$). Univariate analyses of variance were used to assess the distinct effect for each coping strategy. Respondents who understood (some of) the icon were more inclined to adopt some of the coping strategies as compared to those who had no or a wrong understanding. They were less inclined to think that they would not be influenced by it (i.e., asserting confidence; $F(1,161) = 3.74, p < .06, p\eta^2 = .023$), more inclined to think about their existing attitude toward behavioural advertising (i.e., attitude bolstering; $F(1,161) = 3.85, p < .05, p\eta^2 = .023$), and more inclined to think that the initiators of the cookie-icon are not sincere (i.e., source derogation; $F(1,161) = 3.48,$

$p < .06$, $p\eta^2 = .021$). The other coping strategies (selective exposure, cookie acceptance, social validation, negative affect and counter arguing) did not differ between conditions. Thus, our study indeed showed that the cookie-icon is able to influence coping strategies. More importantly, it showed that it is needed to understand what the cookie-icon stands for to influence coping strategies.

3.2.3 How the cookie-icon influences persuasion

Finally, it was tested whether the cookie-icon reduces or increases persuasion of the online ad, i.e. by testing effects on responses to the advertised brand, the online ad and the website on which the online ad was placed. First, it was tested whether the *brand recall* was affected by displaying a cookie-icon in the online ad. This was indeed the case, in the cookie-only and cookie-label conditions the brand was more often remembered (25% and 14% respectively) than in the control condition (7%; $Chi^2(2) = 8.18$, $p = .02$). Both cookie-icon conditions did not differ significantly from each other. Second, the effects on the *attitudes* toward the brand, ad and site were tested. A MANOVA with the conditions as a factor and the attitudinal measures as dependent variables did not reveal significant effects. However, a MANOVA the conditions as independent variable and with *perceived relevance* of the brand, the ad and the web site as dependent variables did reveal significant differences between conditions (Wilk's Lambda $F = 2.99$, $p = .007$, $p\eta^2 = .054$). The univariate analyses of this test showed that effects were significant for perceived relevance of the brand and the ad ($F_{\text{brand}}(2,160) = 8.12$, $p < .001$, $p\eta^2 = .092$; $F_{\text{ad}}(2,160) = 4.59$, $p = .012$, $\eta^2 = .054$). Perceived relevance of the website did not differ between conditions ($F < 1$). Inspection of the means and post-hoc analyses showed that respondents perceived the brand and the ad as more relevant in the cookie-only condition than in the other conditions (all p 's $< .05$). Thus, the cookie-icon increased persuasion in terms of brand recall, and perceived ad and brand relevance.

4 Conclusions and discussion

Attracted by high returns on investment, advertisers heavily invested in online behavioural advertising. The value of such marketing techniques might be diminished by the privacy debate about the controversial technology behind this strategy. The cookie-icon is introduced by the industry as a self-regulatory mechanism to inform consumers about the fact that online ads are based on their surfing behaviour. This study examined the effectiveness of the cookie-icon in terms of cookie-icon awareness and understanding, coping strategies and persuasion effects. In Study 1 a survey was conducted to examine knowledge of and opinions on the cookie-icon among Internet users. In Study 2 an experiment was conducted to test the effectiveness of displaying a cookie-icon (with or without

an explanatory label) in terms of icon knowledge, coping strategies and persuasion. The results of two user studies showed several intriguing findings. This final section summarizes its major conclusions and discusses its limitations and practical implications.

4.1 Three major conclusions

Regarding the awareness of the cookie-icon, it is first concluded that Internet users are not familiar with the icon at all. The first study demonstrated that more than 90% of the sample indicated not having seen the icon before. This finding was supported by the second study, which demonstrated that more than half of the respondents did not notice the icon despite an explanatory label. Thus respondents are unfamiliar with the icon and hardly notice the icon in online ads. This finding is in line with the findings based on a survey conducted by Leon et al. (2012), demonstrating that online behavioural advertising disclosures fall short in drawing attention of Internet users.

Although Internet users are not familiar with the cookie-icon initiative, they respond extremely positively when informed about this initiative. They especially value the fact that it gives insight into companies that use information about online behaviour, which enables user control. This finding is in line with research into positive effects of perceived user control (Phelps, Nowak, and Ferrell, 2000; Milne, Labrecque, and Cromer, 2009; Wills and Zeljkovic, 2011). The study of Milne et al., (2009) for instance showed that respondents who score high on self-efficacy (which is comparable to the concept of user control), have a better understanding of cookies and take more actions to control them by setting their browsers to reject them.

Secondly, regarding the understanding of the cookie-icon, it is concluded that the explanatory label is needed to correctly understand the meaning of the icon. In other words, the cookie-icon is especially effective in terms awareness and understanding if an explanatory label accompanies it. This finding is in line with prior studies that examined icons as a means to communicate information. These studies argue and/or show that text accompanying the icon is essential (e.g., Huang and Bias 2012) especially when confronted with the icon for the first time or when users are unfamiliar with the icon (Wiedenbeck, 1999). The industry is not only disclosing online behavioural advertising with an icon, but brand and product placement for example as well. The fact that explanatory labels are essential when communicating with icons, should be taken into account in future research on forewarning.

Regarding the Internet users' understanding of the cookie-icon, study 2 additionally demonstrated that a better understanding of the cookie-icon is related to several effective coping strategies, such as evaluating the initiators of the icon as not sincere (i.e., source derogation). Participants also more strongly believed

that they were not influenced by it. This last finding is in line with prior research by Sagarin et al. (2002) on consumer perceptions of invulnerability for persuasive communication. They demonstrated that when consumers believe that they have increased knowledge about a certain persuasion technique, consumers feel less vulnerable to this technique. This optimistic consumer bias leads to increased persuasion of the communicated message. However, when the illusion of invulnerability is dispelled, teaching consumers about persuasion techniques increases resistance to persuasive messages. This indicates that consumer education about online behavioural advertising and (privacy) risks could contribute to effective coping strategies. Future research should further investigate whether increased understanding of online behavioural advertising as a marketing strategy indeed results in more or less persuasion.

Thirdly, regarding the effects on persuasion, it was demonstrated that the cookie-icon was able to influence brand recall and perceived ad and brand relevance. More specifically, it was demonstrated that displaying the cookie-icon actually improved brand recall and the perceived relevance of the advertised brand and the online ad, whereas at the same time brand and ad attitudes were not influenced. A possible explanation for these findings is that a considerable part of the respondents who were exposed to the cookie-icon only (that is, without label) incorrectly understood the cookie-icon (18%) and provided a positive explanation of the cookie-icon as compared to 11% and 7% in the cookie-label and the control condition. They for example stated that the cookie-icon is a third-party seal for good (i.e., correct or reliable) advertising. This positive interpretation of the cookie-icon possibly explains the perceived relevance of the brand and the ad in this condition.

4.2 *Limitations and future research*

An interesting venue for further research is to include real clicking behaviour. As we made use of self-reported behaviour (study 1) and examined responses online behavioural advertising and online behavioural advertising disclosure in the context of a simulated browsing scenario (study 2), it would be challenging to include registration of behaviour ('clicks'). It would also be interesting to know whether respondents really saw the icon by including eye-tracking measurement. In our study we noticed that respondents in the control condition claimed to have seen the icon showing the limitation of our study of unreliable self-report awareness.

Another limitation and challenge lies in further testing the role of privacy concerns and perceptions of user control. Although in a different online shopping setting, Milne et al. (2009) and Stanaland et al. (2011) showed that concerns and control (self-efficacy) are important factors in encouraging people to engage in safe online behaviour. Future research could further test what privacy

concerns are most important in hindering or facilitating online behaviour and which types of information would be best to educate people.

4.3 Practical implications

The results of our user studies have implications for the self-regulation initiative of the industry. Most important, the experimental study showed that adding an explanatory label increased the understanding of the cookie-icon, while this did not negatively spill over to the evaluations of the brand, ad or website. Thus for the industry the cookie-icon, including an explanatory label, seems safe to use. Also, this finding might indicate that the cookie-icon itself increases attention to the ad, but is not informative enough to serve as a warning, altering persuasion knowledge. Only when participants had a correct understanding of what the cookie-icon stands for, were they more likely to adopt coping strategies, such as avoiding and denying the information the cookie-icon discloses, indicating that consumer education is needed. The implication that informing and educating web users about online behavioural advertising as a persuasion strategy is a necessity is strengthened by the findings of the survey that knowledge about cookies and coping with cookies is lacking.

5 References

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Children's Responses to Traditional Versus Hybrid Advertising: The Moderating Role of Persuasion Knowledge

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1 Introduction

Today, children have become a fast-growing and increasingly powerful target group that is being approached with specialized advertising techniques (McDermott et al., 2006; Moore, 2004). The impact of advertising on children and young teenagers has raised considerable concern among governmental institutions (Livingstone et al., 2011) and professional organizations such as the American Psychological Association (Kunkel et al., 2004). Their major concern is that children do not fully comprehend the persuasive nature of advertising messages, and are consequently unknowingly influenced by advertising (Buijzen and Valkenburg, 2000; Rozendaal et al., 2009). Moreover, children cannot always distinguish commercial messages from non-commercial media content (Bijmolt et al., 1998). This is especially so when they are dealing with hybrid forms of advertising, in which the commercial message is integrated into the media content (Balasubramanian, 1994). Although these new formats are the subject of a growing body of academic inquiry (e.g., Ali et al., 2009; Dahl et al., 2009; van Reijmersdal et al., 2010), research that explicitly compares the effects of traditional television advertising and these new advertising techniques on children is currently lacking.

1.1 *The Impact of Advertising on Children*

Recent studies have shown that advertising directed at children impacts their brand preferences (Buijzen and Valkenburg, 2000) and food choices (Ferguson et al., 2011). In this sense, advertising for unhealthy foods may negatively impact child obesity rates and encourage an unhealthy diet. While most studies have focused on television and more traditional forms of advertising (Buijzen and Valkenburg, 2000; Ferguson et al., 2011; Oates et al., 2001), children are now exposed to hybrid, more hidden forms of advertising through new online techniques in the forms of trailers (a commercial message announcing a programme or website) or advergames (custom-built online games designed to promote a brand) (Mallinckrodt and Mazerski, 2007; Moore and Rideout, 2007).

It is argued that these hybrid forms of advertising cause effective persuasion effects because they are embedded in an engaging and entertaining context (Mallinckrodt and Mazerski, 2007).

Apart from the message context, the effects of advertising to children also depend on characteristics of the individual child. A stream of research has investigated the role of 'advertising literacy' in determining children's responses to persuasive messages (e.g., Eagle, 2007; Oates et al., 2001; Roozendaal et al., 2008). Researchers tend to adopt a developmental psychological point of view, stating that children lack both cognitive and information processing skills to fully comprehend commercial messages, making them more susceptible to persuasive attempts (Eagle, 2007; John, 1999; Kunkel et al., 2004). Advertising literacy, a general understanding of the persuasive mechanism behind advertising, is thought to develop over time. Consequently, younger children are thought to be more influenced by advertising than older children (John, 1999; Roedder, 1981). Moreover, past research revealed that with increasing knowledge of advertising's intent comes an enhanced ability to resist or elaborate upon commercial messages (Friestad and Wright, 1994). Literature suggests that older children develop a higher degree of advertising literacy and become better equipped to understand advertisers' tactics, making them less susceptible to persuasive attempts. In the past decades, however, studies have mainly scrutinized younger children (from 4 to 10 years old). Recent work by Ali et al. (2009), Livingstone and Helsper (2006) and Nairn and Fine (2008) has shown that the assumption that younger children are more influenced by advertising than older children is invalid. Yet, research on older children is still scarce. The present study addresses the issues outlined above. More specifically, we set out to investigate and compare the effects of both traditional television advertising and more recent hybrid and interactive advertising techniques (trailer, ad-game and their combination) with children aged between 11 and 14 years old. We study their persuasion knowledge as a moderator for effectiveness.

2 Traditional Versus Hybrid Advertising

Our first purpose is to examine the differential impact of traditional television advertising and new hybrid forms of advertising on childrens' brand recognition, brand attitude and brand preference. As illustrated by Waiguny et al. (2011), traditional television commercials and hybrid advertising forms are fundamentally different in nature, and elicit divergent effects on consumers' memory for the brand, attitude towards the brand and brand choice behaviour.

2.1 *Cognitive responses*

The extent to which a brand is recalled after exposure to an advertisement is determined by the individual's limited cognitive capacities (Kahneman, 1973). Different advertising formats require a different investment of cognitive resources. Actively playing an advergame is cognitively more demanding than passive exposure to a television commercial. It requires the player to be attentive of the ongoing gameplay and to anticipate in-game developments, leaving fewer cognitive resources available to spend on other elements, such as the integrated brand (Grigorovici and Constantin, 2004). Television advertisements place the brand in the centre of attention and communicate a single strong brand message supported by audiovisual elements (Maher et al., 2006). Recent studies have shown that television advertisements lead to better memory for the promoted brand than advergames (Waiguny et al., 2011; Walsh et al., 2008).

The present study also investigates the impact of a televised animated trailer, and its combination with the advergame. Animated trailers are a mixture of entertainment content (e.g., an animated cartoon character) and advertising content (Balasubramanian, 1994). As they are often affixed to entertainment programmes, they are hard to distinguish from the programme content itself (Andronikidis and Lambrianidou, 2010). Similar to a television ad, they do not require a substantial investment of cognitive resources. As such, it is likely to have a lower impact on brand recognition than television advertising. The same logic applies to the combined exposure to a trailer and playing an advergame for the same brand. Both are hybrid advertising formats that do not explicitly focus on a commercial message, but integrate it subtly into media content. Therefore, we expect:

H1: Exposure to a television advertisement leads to higher brand recall than playing an advergame, watching a branded trailer and the combination of watching a trailer and playing an advergame.

2.2 *Affective and behavioural responses*

Childrens' affective and subsequent behavioural responses may also vary between hybrid and traditional advertising formats. Earlier research suggests that advergames lead to more effective persuasion than traditional forms of advertising because advergames are more exciting and rewarding (Mallinckrodt and Mazerski, 2007; Pavlou and Stewart, 2000). According to affect transfer theory, the pleasant feelings aroused by playing an advergame are carried over to the promoted brand, producing more favourable attitudinal and behavioural brand responses (Kim et al., 1998). From an Integrated Marketing Communications perspective, this positive response might be enhanced by combining the adver-

game with a consistent message through a compatible channel (Kitchen and Schultz, 2009). Consequently, we expect that:

H2a: Playing an advergame and the combination of watching a trailer and playing an advergame leads to a more positive attitude towards the brand than exposure to just a television advertisement or a branded trailer.

H2b: Playing an advergame and the combination of watching a trailer and playing an advergame leads to a higher choice for the test brand than exposure to just a television advertisement or a branded trailer.

2.3 *The moderating effect of persuasion knowledge*

As argued above, children's responses to commercial communications may depend on their degree of knowledge concerning the practices and psychological effects of marketplace persuasion (Livingstone and Helsper, 2006; Rozendaal et al., 2011; Wright et al., 2005). More precisely, children that attain a higher degree of this persuasion knowledge are thought to respond to advertising messages in a more critical fashion (Friestad and Wright, 1994; Kunkel et al., 2004). Whereas past research has mainly relied on the concept of advertising literacy, coined and elaborated by Roedder (1981), we choose to utilize the more recent and comprehensive Persuasion Knowledge Model (PKM) (Friestad and Wright, 1994). The PKM offers an in-depth treatment of how consumers gradually develop a set of mental tools to help them cope with persuasive episodes more critically. According to the PKM, knowledge of the persuasive agent (i.e., the brand or the firm behind a persuasive attempt) and persuasion knowledge (i.e., knowledge of persuasive tactics) determines how consumers will react to commercial communications. Consumers who are aware of the source behind a commercial message, and who understand the persuasive nature of the message, are more inclined to develop critical counter-argumentation. If this appraisal yields a negative evaluation of the message source, this process may lead to a more sceptical attitude towards the brand (Friestad and Wright, 1995; Friestad and Wright, 2005).

The success of hybrid advertising forms lies partly in the implicit way in which they communicate the commercial message (Balasubramanian, 1994). Contrary to traditional advertising formats, the advertisement is embedded in the content of entertaining media content (e.g., an advergame, a television programme, a movie, etc.). As such, the commercial placement might even go unnoticed, while still impacting consumers' brand attitudes (e.g., van Reijmersdal et al., 2007). If the brand is not actively perceived, persuasion knowledge remains inactive and consumers are less likely to counter-argue the commercial message. Following this line of reasoning, we expect that:

H3a: Hybrid advertising formats (i.e., the advergame, the trailer and their combination) will lead to lower persuasion knowledge than traditional television advertising.

H3b: Brand attitude will be significantly lower when persuasion knowledge is activated by the advertising format, as opposed to when persuasion knowledge is not activated.

3 Method

3.1 Procedure and sample

We set up a between-subject experiment consisting of 4 different experimental conditions. Our sample consisted of 100 children recruited from 5 different elementary schools in Flanders (Belgium). Children were between 11 and 14 years old ($M = 11.98$, $SD = .43$). Before the experiment took place, the parents or guardians of each child were handed a consent form to approve the participation of their child. A similar ethical approval form was signed by the principals of all participating school.

The subjects were exposed to four different advertising formats that promote Unilever's ice-cream brand Ola. All 100 children were randomly assigned to one of these 4 conditions, resulting in equal condition sizes ($n = 25$; cfr. Table 1).

Table 1: Overview of experimental conditions

<i>Experimental treatment</i>	<i>N</i>	<i>Mean age</i>
Television commercial	25	12.04
Trailer	25	11.76
Advergame	25	12.08
Trailer + advergame	25	11.68

Our stimuli consist of existing commercial campaign material of the test brand 'Ola'. The children were divided in small groups of 4 to 5 children, and each group was separately taken to a room where they were given the experimental treatment. Children in the first condition were installed in front of a television set and watched a regular 30-second television commercial. The second group was exposed to a 30-second televised trailer in which a fictitious cartoon character (Mr. Freeze) encouraged the children to visit the website (www.olakids.be) to play the advergame. The children of the third group were separately placed behind a computer to play the advergame. The goal of the advergame was to slide down an icy slope and collect as many Ola popsicles as possible. Completing the game took about 2 minutes. Children in the fourth

condition were first exposed to the trailer, and subsequently played the advertisement. This combined exposure condition was included to investigate the impact of Integrated Marketing Communications (IMC).

Before the experimental treatment was administered, the subjects received a brief instructional demonstration session on how to fill in the 4-point graphic 'smiley' scales. After the treatment, every child was separately taken to a freezer in a different room, where they were allowed to pick one popsicle. They were taken there individually to avoid their choice being influenced by that of others. The freezer contained three brands of rocket shaped popsicles: a generic store brand (Carrefour), a competitive brand (IJsboerke) and the test brand (Ola). The children's choice was registered. Subsequently, the children were individually administered a short questionnaire.

3.2 *Measures*

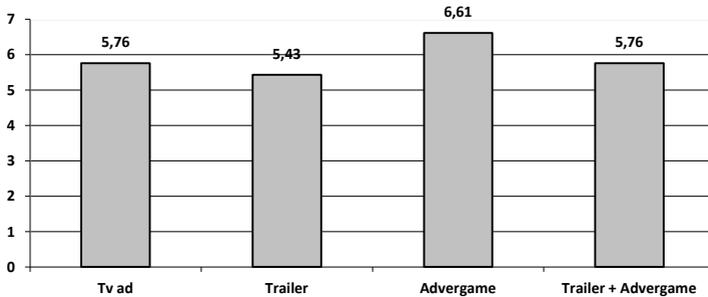
The questionnaire measured the children's aided brand recall using funnel questioning (Oates et al., 2001). Each child was asked a series of 7 yes/no questions about the content of the advertising format they were exposed to. Each new question was more specific than the previous one (e.g.: 'What did you see?', 'Were there things you recognized?', 'Did you see a popsicle?', ...). When a child correctly identified the Ola brand, the series was stopped and the number of 'prompts' was registered. A low amount of prompts needed before correct identification of the brand signifies good aided brand recall. Persuasion knowledge was measured using two variables: children who correctly identified the source behind the commercial stimulus (1) and the persuasive intent (2). Both variables were measured using an open question: 'Who do you think made this movie/game?' for source identification and 'What is the purpose of this movie/game?' for the identification of persuasive intent. Children who identified both the source and the persuasive intent were coded '1'; children who failed to identify source and/or persuasive intent were coded '0'. The attitude towards the brand was measured on a 3-item scale for each of the three brands available as a reward after the experiment (i.e., 'I like ...', '... popsicles taste good' and '... popsicles are fun'). As mentioned above, the attitude towards the brand was measured using four-point smiley scales. In literature it is argued that 4-point scales offer the maximum level of differentiation when working with children (Rossiter, 1977). Moreover, children may have a tendency to opt for the neutral mid-point as a way of not paying attention to the question (Hota et al., 2010).

4 Results

4.1 Cognitive effects

A one-way analysis of variance (ANOVA) was conducted to test whether the different experimental treatments had an effect on children's ability to recall the advertised brand. The number of prompts needed before correct identification of the brand was used as a dependent measure for recall. There is a significant difference between the experimental groups in the mean number of prompts required before correct recall ($F(4, 111) = 2.463, p = .049$). Bonferroni post-hoc pairwise comparison tests indicated that the average number of prompts needed by children in the advergence condition ($M = 6.61, SD = .839$) was significantly higher than that of children in the traditional advertisement condition ($M = 5.00, SD = .2236, p = .033$). Other pairwise comparisons proved to be insignificant ($p > .05$). Results are partially in support of H1.

Figure 1: Mean number of prompts required before correct recall across the experimental conditions



4.2 Affective and behavioural effects

To test differences in brand attitude for Ola between the experimental treatments, a second one-way ANOVA was performed. This analysis showed that the different experimental treatments did not produce significant differences in brand attitude ($F(4, 124) = 1.511, p = .203$). Bonferroni post-hoc pairwise comparison tests showed no significant differences either ($p > .05$). Differences in brand choice between the experimental treatments were analyzed using chi-square analyses. The relationship between experimental treatment and brand choice was insignificant ($X^2(4) = 6.420, p = .170$). Consequently, hypotheses H2a and H2b are not supported.

4.3 Persuasion knowledge

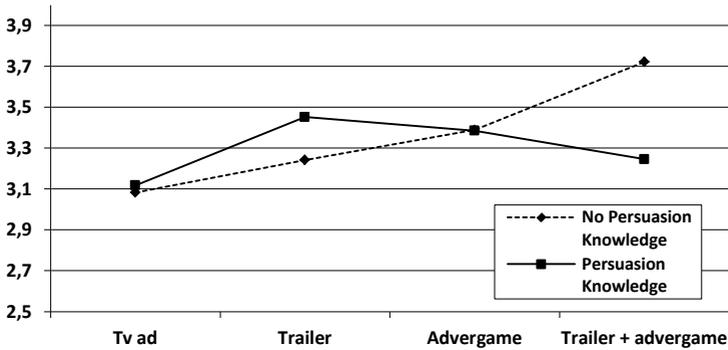
H3a was examined using a binary logistic regression model. We recoded the variable containing information on membership of the experimental conditions into $k - 1$ dummy variables using indicator coding. The ‘Television ad’ condition was used as the reference category. As illustrated by Table 2, none of the calculated simple slope coefficients are statistically significant. Although two out of three beta-coefficients are negative, and thus partly confirm the hypothesized directionality, we must reject H3a.

Table 2: Binary logistic regression model to investigate the impact of traditional versus hybrid formats on the activation of persuasion knowledge

	β	<i>S.E</i>	Wald χ	<i>df</i>	<i>Sig.</i>	<i>Exp</i> (β)
Constant	.754	.429	3.091	1	.079	2.125
Trailer	-.513	.588	.759	1	.384	.599
Advergame	-.674	.587	1.319	1	.251	.510
Trailer + Advergame	.399	.635	.395	1	.530	1.490

To study the moderating effect of persuasion knowledge, a 4 (experimental conditions) x 2 (persuasion knowledge, yes/no) full-factorial one-way ANOVA was performed using the attitude towards the test brand (Ola) as the dependent variable. The experimental treatment ($F(3, 115) = 1.978, p = .103$) and persuasion knowledge ($F(1, 115) = 0.058, p = .810$) exerted no significant main effects on brand attitude. The interaction between both independent variables was also insignificant ($F(4, 115) = 1.626, p = .172$). Simple-effects tests were conducted to compare children with and without persuasion knowledge within each of the individual experimental treatments. As depicted in Figure 2, children without persuasion knowledge develop a significantly more positive attitude towards the brand ($M = 3.722, SD = 0.328$) than children with persuasion knowledge ($M = 3.246, SD = 0.665, F(1, 99) = 5.030, p = .027$) when a combination of an introductory trailer followed by playing the advergame was used. H3b is thus partially supported.

Figure 2: How persuasion knowledge moderates the effect of advertising format on brand attitude



5 Discussion

The present study investigates the impact of traditional versus more novel hybrid advertising techniques on young teens (11-14 years old). By doing so, we address three gaps in recent academic literature on this subject. First, contemporary research on children's responses to commercial messages has undervalued new hybrid forms of advertising by focusing on more traditional forms of advertising (Buijzen and Valkenburg, 2000; Ferguson et al., 2011; Oates et al., 2001). Second, researchers have paid considerable attention to the youngest children (4-10 years old), as from a developmental psychological point of view these children are most vulnerable to persuasive attempts (Eagle, 2007; John, 1999; Roedder, 1981). Despite the accumulating evidence against this paradigm (Livingstone and Helsper, 2006; Nairn and Fine, 2008; Roozendaal et al., 2008) further research into the older age categories is scarce. Lastly, although the moderating role of advertising literacy on children's reactions to commercial messages has been well studied (Livingstone and Helsper, 2006; Rozendaal et al., 2009), few studies consider the moderating effect of the more comprehensive concept of persuasion knowledge (Friestad and Wright, 1994; Roozendaal et al., 2008).

We found that children who were exposed to an advergame needed significantly more help recalling the brand behind the persuasive message than children who got to see a traditional television ad. Advergames engage children and induce feelings of telepresence, a sensation of being present in the gaming environment (Grigorovici and Constantin, 2004; Nelson et al., 2006). Since playing

an advergame is an enjoyable experience, a feeling of being present in the advergame can produce more positive evaluations of the brand. However, this does not correspond to our findings, as there were no significant differences in brand attitude between the conditions. The focus in the advergame is on actively engaging with the brand or the product, rather than on passive exposure to brand identifiers. This implies that gamers receive less explicit cues that could give away persuasive intentions or information about the brand, which might explain why explicit recall memory for Ola is significantly lower in the advergame condition. The advertising techniques employed in the study did not have a different impact on the formation of attitude towards the brand. However, we did find a moderating effect of persuasion knowledge. Children without persuasion knowledge developed a significantly more positive attitude towards the brand than their counterparts when they were shown a trailer followed by playing the advergame. These results are consistent with literature on Integrated Marketing Communications. Carefully designed interplay between different forms of marketing communications may lead to a seamless communication process which minimizes consumer irritation and has beneficial effects on consumers' reactions towards the brand (De Pelsmacker et al., 2007). People with persuasion knowledge are thought to be more resilient to such persuasive efforts; those who are less knowledgeable about advertiser's tactics are more susceptible to these techniques (Friestad and Wright, 1994).

These findings are of special significance to policy makers and advertisers. They show that when a certain communications mix is used, the brand attitude of older children with little knowledge of persuasive methods that are used in advertising can be influenced. Moreover, 37% of our sample was not able to identify the source and/or the commercial intent behind the advertising formats. This supports a recent trend in literature to move beyond the developmental framework that uses age as a main indicator of advances in persuasion knowledge (Rozendaal et al., 2009; Rozendaal et al., 2011). Policy makers should be aware of the fact that young teens' persuasion knowledge is still not equivalent to that of adults. Efforts to design educational programs to help children gain a more comprehensive insight into marketplace persuasion and advertising across different media should thus not exclusively focus on younger children (6 to 10 years old) but also on older children (10 to 14 years old).

The study suffers from a number of limitations which should be considered in future research. The test brand, Ola, is one of the market leaders in children's ice cream. As we did not measure potential prior exposure to the commercial messages, we could not control for this. There is also a possibility of ceiling effects, which can explain the lack of significant differences in brand attitude between the experimental conditions. Further research into the effects of different hybrid advertising forms (e.g., product placement in TV shows, movies or songs) on children, for different brands and products, is definitely called for.

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The Effects of Consumers' Subjective Knowledge on Evaluative Extremity and Product Differentiation

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1 Introduction

Evaluating and differentiating among product alternatives are fundamental to making an optimal choice (Hoegg and Alba, 2007). To identify the best option out of a choice set, consumers need to tell the differences among available alternatives, setting them apart to an extent that a favorite emerges (Brownstein, 2003; Svenson, 1992). In particular, brand choice often requires identification of the best quality option, or at least ruling out options that are poorer in quality than others. This is the focus of the present research – detecting when consumers fail to differentiate among options, and especially when they fail to differentiate a high quality option from a low quality option.

It is widely accepted that factors such as product attribute information (Carpenter, Glazer, and Nakamoto, 1994) and the way in which product information is structured and represented (Diehl, Kornish, and Lynch, 2003; Simonson, 1989) influence how consumers differentiate among alternatives. When consumers have product information available to them, a critical factor influencing differentiation is a consumer's knowledge. The ability to process information improves as one's knowledge and expertise in a domain increases (Alba and Hutchinson, 1987). Highly knowledgeable consumers' well-established cognitive structures enable them to refine decision rules and evaluation criteria, to better categorize product alternatives and to attend to relevant and important attributes, which, in turn, help them discriminate better. In brief, the ability to differentiate among product alternatives is generally attributed to the actual knowledge of consumers. Whereas past research emphasizes the importance of objective knowledge for differentiation based on theorizing about cognitive structures, this paper proposes a new theoretical account that explains when consumers demonstrate greater differentiation among product choices. Specifically, I propose that one's subjective perception of product knowledge exerts effects on product evaluations that are independent from the effects of actual or objective knowledge. People who are high in subjective knowledge have a greater propensity to evaluate product alternatives more extremely than those who are low in subjective knowledge. As a consequence, high subjective knowledge individuals discriminate among the alternatives to a greater extent than do low subjective knowledge individuals. Moreover, this paper also empirically rules out an alternative explanation that motivation to process, or the lack of it, accounts for the proposed effects on product differentiation.

2 Disentangling objective and subjective knowledge

2.1 *Distinctions between objective and subjective knowledge*

Typically, knowledge refers to information stored in long-term memory (Brucks, 1985; Park, Mothersbaugh, and Feick, 1994). Alba and Hutchinson (1987) noted that consumer knowledge includes familiarity and expertise. Familiarity refers to “the number of product-related experiences that have been accumulated by the consumer”. Expertise is defined as “the ability to perform product-related tasks successfully” (p. 411). Hence, consumer knowledge subsumes both product experience and product-related skills and abilities (Shanteau, 1992). Most important for my purpose is that product-related knowledge is of two types – objective knowledge and subjective knowledge (Brucks, 1985; Trafimow and Sniezek, 1994). Objective knowledge concerns the amount, type, or organization of what an individual actually has stored in memory. In contrast, self-assessed knowledge or subjective knowledge reflects people’s perceptions of what or how much they know. In simple terms, whereas subjective knowledge represents what individuals perceive that they know, objective knowledge indicates what they actually know. It seems logical that subjective knowledge should be derived from objective knowledge such that they should be highly correlated. However, many studies reveal that consumers’ knowledge calibration (the correspondence between subjective and objective knowledge) is not always high (Alba and Hutchinson, 2000; Mitchell and Dacin, 1996; Park et al., 1994; Radecki and Jaccard, 1994).

2.2 *The effects of objective and subjective knowledge*

Some early studies of consumer knowledge incorporated both subjective and objective knowledge into the operational definition of product knowledge (e.g., Park and Lessig, 1981). Other studies used subjective knowledge as a surrogate for objective knowledge (Ailawadi, Dant, and Grewal, 2004) by assuming a high correlation between subjective and objective knowledge. However, the magnitude of subjective and objective knowledge correspondence varies across product categories and consumption contexts (Carlson, Vincent, Hardesty, and Bearden, 2009). Using subjective and objective knowledge interchangeably can produce misleading findings. Moreover, the effects of subjective and objective knowledge can be confounded if these two constructs of consumer knowledge are not clearly distinguished. Given that subjective knowledge is more malleable than objective knowledge and the correspondence between them is not always high, it is important to isolate the unique effects of subjective knowledge from those of objective knowledge.

2.2.1 The effects of objective knowledge on behaviors

Extensive literature posits that product knowledge implicates a well-developed cognitive structure, which helps the consumer differentiate among various product alternatives (Alba and Hutchinson, 1987), integrate external information with one's existing knowledge base (Maheswaran and Sternthal, 1990), achieve better memory and reasoning (Shanteau, 1992), and detect new information and available alternatives (Mitchell and Dacin, 1996; Sujan, 1985). These differences are seen most sharply when comparing experts with novices. Because of their superior cognitive functioning, experts enjoy ease in information processing, which facilitates their acquisition of new information (Brucks, 1985). Moreover, experts who are highly familiar with a given product category are likely to engage in automatic processes, which frees up cognitive resources for other activities, such as learning (Alba and Hutchinson, 1987). Therefore, experts are more capable and expected to search more product-related information than novices.

Objective knowledge not only facilitates information search, but also enables experts to better process information and choose appropriate evaluation strategies. Experts are more capable of analytic processing (Sujan, 1985), more competent in drawing inferences about unavailable information (Alba and Hutchinson, 1987), elaborate on information more effortfully regardless of the external motivation to do so (Maheswaran and Sternthal, 1990), and better integrate new information with existing knowledge relative to novices (Maheswaran, Sternthal, and Gürhan, 1996). Furthermore, because of their ability to categorize stimuli to finer degrees and the associated, rich schema-based knowledge, experts can use more efficient top-down processing as opposed to the bottom-up, data-driven strategies favored by novices (Spence and Brucks, 1997).

Because high objective knowledge helps experts search, process, and organize information, experts gradually develop an internally consistent cognitive structure that is characterized by highly correlated attributes (Judd and Brauer, 1995). When evaluating a product, for example, experts consider many attributes that are perceived as correlated, resulting in polarizing and extreme evaluations (Lusk and Judd, 1988). Nonexperts generally consider fewer, relatively orthogonal attributes. When overall evaluations are made on the basis of these attributes, the judgments are more moderate than those of experts (Brauer Chambres, Niedenthal, and Chatard-Pannetier, 2004). In sum, past research suggests that high objective knowledge leads to extreme evaluations.

2.2.2 The effects of subjective knowledge on behaviors

Empirical evidence in consumer research suggests that subjective knowledge exerts unique, independent effects, or even opposite effects to those of objective knowledge (Brucks, 1985; Raju, Lonial, and Mangold, 1995). The effects of subjective knowledge on consumer behaviors, reported in the literature thus far include the impact on product choices (Burson, 2007; Moorman, Diehl, Brinberg, and Kidwell, 2004), overconfidence (Trafimow and Sniezek, 1994), and information search (Brucks, 1985; Park and Lessig, 1981). Generally, subjective knowledge is negatively related to the amount of information search (Brucks, 1985; Raju et al., 1995). Yet, the lack of subjective knowledge can motivate search by increasing the perceived importance of, and receptivity to, new product information (Park and Lessig, 1981; Park et al., 1994).

Apart from the amount of search, search strategies are also influenced by subjective knowledge. Moorman et al. (2004) demonstrated that consumers chose the locations of search based on their perceived domain knowledge to maintain self-consistency. Specifically, Moorman et al. (2004) showed that those who believed that they were knowledgeable about health and nutrition were more likely to search for products in the areas of a store in which healthy foods were placed. Park and Lessig (1981) also showed that the level of product familiarity, which was comprised of both subjective and objective knowledge measures, influenced the selectivity of information inputs. Specifically, high familiarity individuals are relatively more confident in the use of intrinsic cues for product evaluations (Rao and Monroe, 1988). In comparison, those who are low in familiarity may be less confident about intrinsic cues. Instead they base their evaluations on marketer-supplied, extrinsic product cues, such as price and brand names.

3 Why Subjective Knowledge Should Influence Differentiation

Whereas past research identifies the importance of objective knowledge on differentiation from an information processing perspective, I propose the novel notion that subjective knowledge can explain when consumers differentiate among product choices. Specifically, I suggest that subjective knowledge can exert a unique effect on the way consumers evaluate products. Relative to people who are low in subjective knowledge, those high in subjective knowledge increase the extremity of product evaluations, demonstrating greater differentiation among alternatives. This proposed subjective knowledge effect can be explained by the differential processing of valenced product information. In particular, I propose that low subjective knowledge reduces the processing of negative information.

3.1 *Subjective knowledge affects the processing of valenced information*

I propose that subjective knowledge affects the processing of valenced product information. The rationale hinges on their inferred capability in domain-relevant tasks. Specifically, high subjective knowledge should enhance consumers' perception of their capability to process product information. In contrast, low subjective knowledge dampens one's belief in how well they process (Bandura, 2001). Since consumers have broad expectations that products have good attributes more than bad ones (Herr, Kardes, and Kim, 1991), they may believe that negative product information is harder to identify than positive information. The diminished self-view on the processing capability thus discourages low subjective knowledge people from actively looking for negative information that is believed to be hard to find. In brief, low subjective knowledge can create a positivity bias in processing because of a perceived lack of capability to identify negative attributes and information.

Negative information facilitates categorization of products and thus greater differentiation among product alternatives than positive information (Herr et al., 1991). Provided that people high in subjective knowledge are more willing to process negative information because of beliefs about their capability, they should give more extreme evaluations and demonstrate greater differentiation than should those who are low in subjective knowledge.

H1: People who are high in subjective knowledge about a product domain are more extreme in product ratings than those who are low in subjective knowledge.

H2: Whereas people low in subjective knowledge about a product domain are predominantly positive regardless of the product quality, those who are high in subjective knowledge differentiate between products, evaluating poor quality products lower.

3.2 *Subjective knowledge influences motivation to process*

There is a possible alternative explanation that may account for the effects of subjective knowledge on evaluative extremity and product differentiation. First, subjective knowledge may increase the motivation to process product information. On the one hand, when people perceive that they are knowledgeable about a product category, they become more engaged in domain-related tasks and motivated to scrutinize products more effortfully (Fishbach, 2009). As a result, they attend to the differences among the available choices that could have been overlooked when the motivation to process is low. Choices are thus discriminated to a greater extent when motivation is high than when low.

On the other hand, past research shows that people low in subjective knowledge may increase their motivation to search and process (Park and Lessig 1981), particularly when the product domain is high in personal relevance (Radecki and Jaccard, 1994). Besides, highly effortful processing does not necessarily increase extremity in evaluating a product. It can elevate the complexity of the cognitive representation (i.e., a product represented by more attributes and features), which in turn reduces evaluation extremity (Linville, 1982).

In brief, subjective knowledge may not have a unidirectional influence on motivation to process. Even if high subjective knowledge does motivate highly effortful processing, evaluative extremity does not necessarily increase. Although there is ambiguity in the aforementioned causal chain that may render the motivation explanation improbable, I empirically test this potential mechanism.

Two empirical studies were conducted to test the proposed hypothesis pertaining to the effects of subjective knowledge and underlying mechanisms. Study 1 focused on the effect of subjective knowledge on product differentiation and processing of valenced information. Study 2 tested whether motivation to process could explain the proposed effects.

4 Study 1

4.1 *Method and measures*

Ninety-four undergraduate students were randomly assigned to one of four conditions in a 2 (subjective knowledge: high vs. low) x 2 (product quality: superior vs. inferior) between-subject design. Participants were asked to evaluate a music software program that was supposed to convert music from analog into digital formats. Before they listened to the music sample purportedly converted by the focal software, they were asked to complete a 20-question knowledge quiz about digital music. Subjective knowledge (SK) was manipulated by the fictitious quiz score randomly assigned to participants (people were told that their scores were in the top 12th percentile or the bottom 12th percentile), and subsequently assessed by 7-point scales adapted from Brucks (1985) and Park et al. (1994). These items served as the measures of their actual perception of SK as well as the manipulation checks. An one-way ANOVA suggested that the manipulation of SK was successful. Objective knowledge (OK) was measured based on the number of quiz items each participant correctly answered, with a possible maximum of 20 and a minimum of zero. Next, they were asked to listen to a music sample ostensibly encoded by the software. The sound quality of the sample was either good (e.g., high bit-rate mp3) or bad (e.g., low bit-rate mp3 with distortion). The respondents then rated the product by 100-point scales and wrote a review for the product. Finally, they completed measures of control variables such as their confidence and effort in the task, received their actual quiz scores and were thoroughly debriefed.

4.2 Results

4.2.1 Product Evaluations and Extremity

Ratings for the focal product were analyzed by a 2 (SK: high vs. low) \times 2 (product quality: superior vs. inferior) ANOVA. The results reveal that there was a significant main effect of sound quality on the evaluation. Specifically, the superior version of the target music sample was evaluated more favorably ($M=70.21$) than was the inferior version ($M=53.74$, $F(1, 90)=10.52$, $p=.002$), demonstrating the success of the sound quality manipulation. More importantly, the main effect of sound quality was qualified by a significant interaction between SK and sound quality ($F(1, 90)=12.65$, $p=.001$). Planned contrasts suggest that the high SK group gave lower evaluation ratings ($M=42.39$) than did the low SK group when the sound quality was inferior ($M=65.08$, $t(45)=-2.87$, $p=.006$). However, when the sound quality was superior, high SK group gave higher evaluation ratings ($M=76.92$) than did low SK group ($M=63.49$, $t(45)=2.10$, $p=.04$). The range of ratings between objectively superior and inferior products was greater among high SK (34.53) than low SK individuals (1.59). The results support H1, that product differentiation depends on SK. Specifically, high SK group demonstrated greater differentiation by giving more extreme evaluations than did low SK group. Conversely, the low SK group failed to discriminate between objectively superior and inferior quality by giving relatively more moderate evaluations than did the high SK group.

4.2.2 Processing Valenced Information

Participants provided written reviews after listening to the music sample and before giving evaluation ratings. An independent coder who was blind to the hypotheses and the conditions to which the participants were assigned coded the reviews into the numbers of positive and negative statements about the software.

The numbers of positive and negative statements were analyzed by a 2 (SK: high vs. low) \times 2 (product quality: superior vs. inferior) \times 2 (valence of statements: positive vs. positive) mixed-design ANCOVA with the first two as between-subject and the last as within-subject factors, and the total number of statements in a review as a covariate. As expected, a significant two-way interaction between sound quality and valence of statements ($F(1, 87)=14.07$, $p=.001$), and a three-way interaction emerged ($F(1, 87)=14.69$, $p=.001$).

To further analyze the three-way interaction, I examined the two-way interaction between sound quality and valence of statements separately for high and low SK groups. For the high SK group, the two-way interaction was significant ($F(1, 44)=22.30$, $p<.001$). When the sound quality was superior, positive statements ($M=1.54$) outnumbered negative statements ($M=.07$, $t(23)=5.00$, $p<.001$). However, when the sound quality was inferior, the reverse emerged such that

negative statements ($M=1.10$) outnumbered positive statements ($M=.32$, $t(22)=2.38$, $p=.03$). The high SK group demonstrated again their ability to differentiate by writing reviews that reflected the objective quality of the product.

For the low SK group, however, only a significant main effect of valence emerged such that there were more positive ($M=1.06$) than negative statements ($M=.48$) regardless of sound quality ($F(1, 44)=6.48$, $p=.01$). The two-way interaction was not significant ($F<1$, NS). Planned contrasts showed that when the quality was superior, the low SK group gave more positive ($M=.97$) than negative statements in their reviews ($M=.41$, $t(22)=2.66$, $p=.02$). When the quality was inferior, they still provided more positive ($M=1.14$) than negative statements ($M=.55$, $t(23)=2.70$, $p=.01$). Hence, the low SK group failed to differentiate by giving predominantly positive reviews regardless of the objective quality difference. Together, these results based on written reviews lend support to H2.

4.2.3 Objective Knowledge, Confidence, and Effort

Objective knowledge (OK) was measured by the scores on the digital music quiz. To examine the confounding effect, if any, of OK, the data was analyzed in a 2 (sound quality) \times 2 (SK) \times 2 (OK) ANOVA. The last independent variable was created by a median split based on the actual quiz's scores. Results show no main effect or high-order interaction that involve OK. The effects of the interaction between SK and sound quality on product evaluations, positive and negative statements in written reviews, and the thought valence remained significant ($ps<.005$). Another way to control for the potential confounding effect of OK was to include it as a covariate in a regression equation. Results suggest that OK was not even correlated with either product evaluations or processing valenced information. The manipulation of SK did not influence participants' confidence and effort in the evaluations. Analyzing confidence in a 2 (sound quality) \times 2 (SK) ANOVA did not produce any main or interaction effects. People in the high SK conditions were as confident as those in the low SK conditions (3.92 vs. 3.91, $F<1$, NS). A similar analysis of effort gave the same pattern. People in the high SK conditions reported as much effort as did those in the low SK conditions (4.99 vs. 4.91, $F<1$, NS). The observed effects thus cannot be attributed to these possible confounding factors.

Table 1: Evaluations as a Function of Subjective Knowledge and Product Quality

Dependent Measure	High Subjective Knowledge		Low Subjective Knowledge	
	Superior Quality	Inferior Quality	Superior Quality	Inferior Quality
Subjective knowledge	4.42 ^a	4.59 ^a	3.63 ^b	3.21 ^b
Product ratings	76.92 ^{a,c}	42.39 ^b	63.49 ^c	65.08 ^c
Positive statements in written reviews*	1.54 ^a	.32 ^b	.97 ^c	1.14 ^c
Negative statements in written reviews*	.07 ^{a,c}	1.10 ^b	.41 ^c	.55 ^{b,c}
Confidence	4.42	3.50	3.87	3.96
Effort	5.06	4.91	4.85	4.98
Objective knowledge	13.67	13.78	12.96	13.42
N	24	23	23	24

Note - Means across the rows for a given dependent variable with different superscripts are different at $p < .05$. *Adjusted means with total number of statements as a covariate.

4.3 Discussion

The results of study 1 showed that product evaluations were influenced by subjective perceptions of domain knowledge. Specifically, high subjective knowledge individuals gave more extreme evaluations than did their low subjective knowledge counterparts, resulting in greater differentiation between high and low-quality products. In addition, the contents of written product reviews provided convergent evidence of the subjective knowledge effect on evaluations. The positivity in the reviews provided by the low subjective knowledge group suggests that people low in subjective knowledge appeared to have overlooked the negative product information. Based on the objective knowledge measures, they were as knowledgeable about digital music as their high subjective knowledge counterparts, and hence both high and low subjective knowledge group should be equally capable of differentiating between products of different quality. However, they appeared to infer a lack of processing capability from their impoverished perception of knowledge. As a result, they did not search for the negative information as much as the high subjective knowledge group did.

5 Study 2

The main purpose of this study is to rule out motivation to process as an explanation for the proposed subjective knowledge effect on extremity and differentiation. An alternative explanation for the findings in previous studies is that those low in subjective knowledge lacked the motivation to pay attention to differences among stimuli and so provided less extreme evaluations. Although self-reported effort did not differ between high and low subjective knowledge participants in previous studies, the measures might be subject to social desirability. Experimentally manipulating motivation and objectively measuring how motivated low subjective knowledge participants are (in terms of the length of their reviews and total time they spent in the study) can help rule out the effects of low motivation on product evaluations of differentiation.

Another important goal is to investigate whether the processing of negative information affects evaluative extremity. The results in study 2 shows that the low subjective knowledge group did not discriminate between products of good and mediocre quality. Their reviews were predominantly positive regardless of product quality, suggesting that they did not process the negative information as much as they processed the positive information. Therefore, a direct instruction to ask them to focus on negative product information should reduce such positivity bias. As a result, the low subjective knowledge group should be able to differentiate as well as the high subjective knowledge group. In addition, this study also measures incidental positive and negative mood after the manipulation of subjective knowledge to rule out the potential effects of mood.

5.1 *Method and measures*

One hundred and twenty-two undergraduate students were randomly assigned to one of the six conditions of a 2 (subjective knowledge: high vs. low) x 3 (incentive: no incentive, accuracy, negative-focused) between-subject factorial. As in study 1, subjective knowledge about digital music was manipulated by bogus feedback on a knowledge quiz. To test whether the motivation to process explains the effects of subjective knowledge on evaluations, those who were assigned to the accuracy conditions were told that they could receive a monetary reward of US\$5 if they accurately evaluated the target product. Participants in the negative-focused conditions were instructed that they could earn US\$5 by focusing on the negative information about the product (e.g., something they do not like about the product). The no-incentive conditions did not include any monetary incentive and served as control conditions. Unlike study 1 in which product quality varied, this study exposed participants only to an inferior music product.

Key measures included manipulation checks of subjective knowledge, product evaluations and written reviews. All scale items were the same as in study 1. In addition, ten items that measured incidental positive and negative mood (i.e., happy, excited, proud, pleased with myself, calm, distressed, sad, ashamed, humiliated, incompetent) were also included to examine the possibility that mood influences evaluations. To assess the effect of the monetary incentive on the motivation to process, the total time spent in the study was recorded for each participant individually.

5.2 Results

5.2.1 Manipulation Checks

The manipulation of subjective knowledge was successful. The subjective knowledge composite index was submitted to a 2 (subjective knowledge: high vs. low) x 3 (types of incentive: no incentive, accuracy, negative-focused) ANOVA and revealed only a significant main effect of subjective knowledge. Participants who received favorable quiz feedback indicated greater subjective knowledge ($M = 4.45$) than did those who received unfavorable quiz feedback ($M = 3.61$), ($F(1, 118)=9.21, p=.003$). To assess the effectiveness of the manipulation of incentive, the total time spent in the study was analyzed by the 2 (subjective knowledge) x 3 (types of incentive) ANOVA. Only the main effect of incentive was significant ($F(1, 118)=13.22, p<.001$). A planned contrast test showed that participants spent longer time in the study when they received an incentive to be accurate ($M=1003.12$ seconds) or an incentive to be negative-focused ($M=980.56$ seconds) than when there was no incentive ($M=713.53$ seconds). Having an incentive apparently motivated participants to work harder.

5.2.2 Product Ratings and Extremity

Product ratings of the focal music software were also analyzed in a 2 (subjective knowledge) x 3 (types of incentive) ANOVA. A significant main effect of subjective knowledge emerged such that high subjective knowledge (SK) participants gave lower ratings ($M=40.92$) than did low SK participants ($M=57.80$), ($F(1, 117)=10.01, p=.002$). There was also a marginally significant interaction between subjective knowledge and types of incentive ($F(2, 117)=2.33, p=.10$). To further understand this interaction, pair wise comparisons were performed separately for each incentive condition.

In the no-incentive control condition, high SK people gave lower ratings ($M=36.92$) than did low SK people ($M=61.08$), ($t(38)=-2.77, p=.009$). Recall that only the objectively inferior music product was used in the current study. The relatively high ratings provided by the low SK participants suggested that they failed to accurately evaluate the product. If low SK participants' failure to

differentiate is due to a lack of motivation, an incentive to reward accuracy in ratings should have motivated them to scrutinize the product more effortfully. Their ratings should then reflect the inferiority in the product quality. In the “incentive to be accurate” condition, although participants did spend more effort in the product evaluation, the ratings provided by the low SK group were still higher than those provided by the high SK group (70.06 vs. 44.05), ($t(41)=2.75$, $p=.009$). The extra incentive did not help the low SK people become more accurate. Hence, motivation, or the lack of motivation, does not seem convincing as an explanation for the effects of subjective knowledge on evaluative extremity. The low SK group was accurate only when they were encouraged to process negative information. Specifically, when there was an incentive to focus on the negative aspects of the product, both high and low SK people gave similarly low ratings to the product of inferior quality (41.77 vs. 42.25), ($t(39)=.05$, NS).

5.2.3 Written Reviews

An independent coder who was blind to the hypotheses and the conditions to which the participants were assigned coded the reviews into the numbers of positive and negative statements about the focal software. The numbers of positive and negative statements were analyzed by a 2 (subjective knowledge) x 3 (types of incentive) x 2 (valence of statements) mixed-design ANCOVA with the first two as between-subject and the last as within-subject factors, and the total number of statements in a review as a covariate. As predicted, a significant three-way interaction emerged ($F(2, 116)=8.89$, $p=.01$).

To further analyze the three-way interaction, I examined the two-way interaction between types of incentive and valence of statements separately for high and low SK groups. For the high SK group, the two-way interaction was not significant ($F<1$, NS). Only a significant main effect of valence emerged. Negative statements always outnumbered positive statements (1.90 vs. .56), ($F(1, 63)=5.63$, $p=.001$). The high SK group appeared to identify the inferiority in the product and expressed their unfavourable opinions in the reviews regardless of whether or not there was an incentive. Among those low in subjective knowledge, the interaction between types of incentive and valence was significant ($F(2, 56)=3.68$, $p=.03$). Pair wise comparisons were conducted to further look into the effects. In the no-incentive condition, the numbers of positive and negative statements did not differ (1.16 vs. .89), ($t<1$, NS), demonstrating a positivity bias for an objectively inferior product. When the low SK group was motivated by an incentive, the numbers of positive and negative statements did not differ either (1.59 vs. .94), ($t<1$, NS). Only when the low SK group was instructed to processing negative information, positive statements was outnumbered by negative statements (.64 vs. 2.36), ($F(1, 18)=-3.23$, $p=.006$).

5.2.4 Confidence, Effort, and Mood

As in study 1, there was no confidence or effort effect on evaluations or written reviews. The manipulations of subjective knowledge and incentive did not influence mood. Participants' positive and negative mood had no effect on product evaluations.

Table 2: Evaluations as a Function of Subjective Knowledge and Motivation to Process

<i>Dependent Measure</i>	<i>No Incentive</i>		<i>Incentive to be Accurate</i>		<i>Incentive to Process Negative Info</i>	
	<i>High SK</i>	<i>Low SK</i>	<i>High SK</i>	<i>Low SK</i>	<i>High SK</i>	<i>Low SK</i>
Subjective knowledge	4.85	3.68	4.21	3.44	4.46	3.70
Total time (seconds)	681.05	753.65	845.63	1003.12	880.79	980.56
Product ratings	36.92	61.08	44.05	70.06	41.77	42.25
Positive statements in reviews*	.41	1.16	.62	1.59	.58	.64
Negative statements in reviews*	1.65	.89	2.00	.94	1.74	2.36
Confidence	4.35	4.21	4.62	4.68	4.63	4.53
Effort	5.82	5.29	5.95	5.41	5.80	5.69
Positive mood	4.02	4.25	4.13	3.90	4.32	4.61
Negative mood	2.22	2.40	1.76	2.04	1.97	1.84
Objective knowledge**	13.59	14.00	14.05	13.12	14.69	14.63
<i>N</i>	20	19	23	20	21	19

Note - Note - Higher means indicate greater subjective knowledge, higher product ratings, higher number of statements, greater confidence, greater effort, and higher objective knowledge.

** Objective knowledge is measured by the number of correct answers to a 20-question knowledge quiz about digital music.

6 General Discussion

The results of this study showed that product evaluations were influenced by subjective perceptions of domain knowledge. Specifically, high subjective knowledge individuals gave more extreme evaluations than did their low subjective knowledge counterparts, resulting in greater differentiation between high and low-quality products. In addition, the contents of written product reviews provided convergent evidence of the subjective knowledge effect on evaluations. Open-ended written reviews offer more opportunities to look into how valenced information is processed. Consistent with the product ratings, written reviews provided by the high subjective knowledge group reflected the quality of the music products, showing the ability to differentiate between objectively good and mediocre product alternatives. Low subjective knowledge group not only failed to differentiate by giving approximately the same product ratings but also became predominantly positive in the reviews regardless of the disparity in product quality. The positivity in the reviews provided by the low subjective knowledge group suggests that people low in subjective knowledge appeared to have overlooked the negative product information. Based on the objective knowledge measures, they were as knowledgeable about digital music as their high subjective knowledge counterparts, and hence both high and low subjective knowledge group should be equally capable of differentiating between products of different quality. However, they appeared to infer a lack of processing capability from their impoverished perception of knowledge. As a result, they did not search for the negative information as much as the high subjective knowledge group did. A possible alternative explanation, namely motivation to process, was ruled out empirically. Highly motivated people who were low in subjective knowledge failed to differentiate as did the high subjective knowledge people who were equally motivated.

The fact that subjective knowledge can influence evaluative extremity, coupled with the possibility of manipulating subjective knowledge regardless of how much one actually knows, opens up new opportunities for marketers and advertisers. Greater extremity and differentiation can advance preference formation and purchase decisions among high subjective knowledge individuals. Past research demonstrates that consumers may defer choices when they experience trade-off difficulty with similarly attractive alternatives (Dhar, 1997; Dhar and Nowlis, 1999). Should enhanced subjective knowledge lead to more extreme evaluations, the greater differentiation among product choices may reduce the difficulty in choosing and speed up purchase decisions. For example, salespeople in retail stores can strategically elevate customers' subjective knowledge such that they are apt to differentiate and more likely to commit to the choice that they identify as the best. This technique can be particularly effective in selling skill-based products, such as golf clubs and cameras (Burson, 2007).

Advertising can also be a vehicle to deliver product knowledge and effectively alter both subjective and objective knowledge.

7 References

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