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„The Role of Personal and Social Identities in Green Advertising Effects“

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Introduction

Increasingly throughout the past few decades, environmental issues have become a prominent point of concern among governments, corporations and consumers (Capstick et al., 2015; Zimmer, Stafford & Stafford, 1994). In attempts to mitigate anthropogenic effects on the environment and reduce CO² emissions, a range of strategic responses have emerged since the late 1990s, including environmental policies and business strategies implemented by corporations (Kolk & Pinske, 2005). At the same time, with growing awareness of the seriousness of anthropogenic environmental issues, consumers started to express their preference for environmentally friendly products and services intended to reduce negative environmental effects (Kang et al., 2012; Laroche, Bergeron & Barbaro-Forleo, 2001). According to sustainable consumer market reports, approximately one-third of consumers make purchase decisions based on the social and environmental impact of a brand, and sixty-six per cent of global respondents claim they are willing to pay more for sustainable goods (Nielsen, 2015; Unilever, 2017). Marketing for sustainable goods and practices is set to become a major factor in modern business (Chen, 2008; Charter, 2017).

While pro-environmental marketing efforts are attracting widespread interest due to growing public concern, there is still little consensus among researchers and practitioners about the efficacy of green advertising campaigns, and the predecessors of environmentally conscious attitudes and behaviours remain unclear. Consumers' concerns and beliefs regarding the environment do not necessarily translate into environmental attitudes and behaviour (McCarty & Shrum, 2001).

Advertising is argued to have the ability to shape identities, while simultaneously

taking advantage of the concept of consumer identity to create strong imagery and brand messaging (Bartholomew, 2010). Meanwhile, social identity (e.g. with environmentally conscious consumers), was shown to have direct and indirect effects on green purchase behaviour (Bartels & Reinders, 2010). Since online advertising's rise to prominence, tools for targeting audiences and tailoring promotional messages have become increasingly sophisticated (Bauman, Schmidt & Preuss, 2008; Schumann, von Wangenheim & Groene, 2014). This growth led to new opportunities for advertisers to maximize the effectiveness of their advertising campaigns based on multiple characteristics of the target audience, including those related to personal and social identities. There is little understanding of how personal and social identities interact with visual advertising and what effects they have on consumer attitudes and behaviours.

The environmental concern of consumers, as shown in the literature (Chang, 2012; Alniacik and Yilmaz, 2012), has a significant effect on green advertising perceptions and scepticism toward green marketing. Given the diverse range of dimensions of environmental concerns in the public eye, among which, concern for waste and concern for wildlife are the most prevalent (Zimmer, Stafford & Stafford, 1994), this study focuses on advertising of environmentally-friendly alternatives to otherwise disposable plastic products.

Other dimensions of individuals' involvement with the environmental issues taken into account as conditional forces are environmental knowledge and green purchase behaviour. Previous research investigated green purchase behaviour as an outcome (Shrum, McCarty, & Lowrey, 1995; Rahbar & Abdul Wahid, 2011), although the consumer's previous pro-environmental behaviour positively predicts the attitudes toward the ad and the brand (Tucker et al., 2012). Prior knowledge about the environmental issues (hereafter, green

knowledge) of the individuals along with environmental concern and previous buying behaviour is a component playing into the perception of green advertising.

In a study by Bartels and Reinders (2010), an individual's social identification is one of the important drivers of organic food consumption behaviour. They suggested that social identity theory (SIT) explains the relationship an individual has with his or her social environment (Tajfel et al., 1979; Tajfel, 1981). The current study adopts the concepts and insights of SIT in relation to green advertising and its effects.

Considering all of the above, the present research project aims to add to the current understanding of how the interplay of green advertising message framing and a primed identity of the advertising audience related to attitudes toward the green brands and green advertising as well as to purchase intentions. This paper examines this relationship by manipulating green advertising messages in terms of their identity frames (i.e., a collective, 'us', message vs an individual, 'you', message) and by priming participants' identity (social vs personal). The main interest of the study is the combination of aligned advertising and identity elements and its effects on attitudes toward the ad and brand as well as intentions to buy eco-friendly products. Awareness of the cognitive processes behind the green advertising evaluation and what role social and personal identities play in this process, will allow marketers and political actors to develop efficient marketing offerings in order to successfully promote green products and sustainable consumption.

This paper is divided into four parts. The first section gives an overview of state-of-the-art literature relevant to consumer identity, green advertising and environmental involvement. Additionally, the research question and the main hypotheses are derived from the reviewed literature. The second section outlines the research methodology and study

procedures. In the third section, the results of data analysis are summarized. In the fourth and final section, the paper concludes with a discussion of the findings, limitations of the study and directions for future research.

Literature Review

The present study argues that green advertising effects can be amplified by adding a social identity dimension to the message framing and situational priming of the ad. In broad terms, green advertising is defined as an advertising message “promoting environmentally-oriented consumption behaviour” (Kilbourne, 1995, p. 17). Advertisement has also been labeled as green through various elements, such as the natural images in the advertisement design, the environmental claims or highlighting of “green” product properties (Richards, 2013).

Over the last two decades, many for-profit organisations and industries started to introduce new, eco-friendly products and brands aiming to facilitate the long term goal of protecting the environment (Iyer & Banerjee, 1993; Leonidou et al., 2011). However, advertising of sustainable, green products, has its specific challenges. For instance, convincing consumers to opt for eco-friendly goods seems to be a difficult task, since the positive outcomes of sustainable consumption practices concerns the planet and society as a whole rather than the individual consumers themselves (Kronrod, Grinstein, & Wathieu, 2012).

Until now, researchers studied green advertising in terms of its environmental appeals (Schuhwerk & Lefkoff-Hagius, 1995), persuasiveness (Kronrod, Grinstein, & Wathieu, 2012), and concrete and abstract appeals (Yang et al., 2015). While a few studies proposed the characteristics and identity traits of a consumer receptive to green advertising (Tucker et

al., 2012; Shrum, McCarty, & Lowrey, 1995; Chen & Chiu, 2016), it remains unclear what role consumer identity plays in green advertising effects. The central interest of the current study is the tension between individuals' buying behaviour, that belongs to the private domain of everyday life, and benefits for humanity globally, embraced by sustainable consumption.

Identity Salience and its Influence on Sustainable Consumption

One of the core areas of interest in the present research project is the concept of identity and its role in advertising effects. In the literature, the term identity has usually been applied to the theories of the *self* of social psychology studies (Stets & Burke, 2000). The *self* is theorized primarily as the person's sense of unique identity, although in previous decades the term was enlarged to the social concept of the self in relation to others and to social groups (Brewer & Gardner, 1996; Hogg, 2003). The cross-cultural perspective of identity theory has driven scholars to explore the possibility that the most fundamental differences in the way the self is constructed involves the sense of connectedness and belonging (Markus & Kitayama, 1991; Trafimow, Triandis & Goto, 1991). The "need to belong", therefore, as an innate part of human nature, is deemed to be reflected in motivational properties of collective identities (Baumeister & Leary, 1995).

Social identity theory (or SIT) treats identities as personal and social (Tajfel et al., 1979). Personal identity usually refers to the identity that concerns an individual's personal traits, goals, and values, whereas social identity is used to refer to the sense of belongingness and affiliation to collectives and groups (Brewer, 1991). Furthermore, personal identity reflects the aspects of self-concept that differentiate the self from all others and social identity refers to the assimilation to others.

Social identity theory implies that whether people perceive themselves as individuals or group members affects the strategies and goals they pursue in their consumption (Oyserman, 2009). Since the 1980s, the sociology of consumption has largely been focused on the ways in which consumption choices in economically developed societies contribute to the process of creating and sustaining a self-identity (Soror, 2010).

A fundamental issue of SIT applied to communication research is poor understanding of the ways in which identities produce behaviours and connections between them (Stryker & Burke, 2000). They have reported that identity positively predicted behaviour only when the meaning of identity corresponded to the meaning of that behaviour. As Elliott and Wattanasuwan (1998) put it in regards to identity and consumption, “if the consumer has choices to consume, he or she will consume things that hold particular symbolic meanings” (p. 134). Accordingly, this study proposes that if the properties of the advertising “consumed” by the recipient match his or her active identity, the message of such advertising will elicit a more favourable response.

Consumption, as theorised by scholars and practitioners, often acts as a manifestation of self- or group identity. From this perspective, social identity theory establishes the connection between one’s sense of self and one’s possessions (Belk, 1988; Sirgy, 1982). Green advertising, in turn, as a part of brand advertising, can also be investigated as a bearer of symbolic meaning that might be interpreted and used by consumers to reflect their corresponding self-identity.

Identities have been found to be fluid and influenced by a variety of individual, social and contextual factors (Stets & Burke, 2003; Forehand, Deshpandé & Reed, 2002; Oyserman, 2009). These external factors can substantially differ and “activate” specific social identities

of individuals, i.e. to increase identity salience (Aaker & Williams, 1998; Arnett et al., 2003; Markus & Kunda, 1986; Brewer & Gardner, 1996). This process of identity salience activation, consequently, drives individuals to have higher sensitivity to identity-related stimuli (Forehand, Deshpandé & Reed, 2002). Increased salience of a particular identity was shown to impact behaviour, perceptions and performances (Abrams, 1994; Hogg, 1992; Turner et al., 1987, Turner, 1982) and even ad effectiveness (Chang, 2010; Kareklas, Carlson & Muehling, 2012).

This study examines three core outcome variables: attitude toward the ad, attitude toward the brand, and purchase intention. Attitude toward the ad is conceptualized by Lutz, MacKenzie and Belch (1983) as recipients' affective reactions to the ad. Likewise, they define attitude toward the brand as the recipients' affective reactions toward the advertised brand. Finally, purchase intentions are defined by the same authors as recipients' assessments of the likelihood that they will purchase the brand in the future.

Two main external factors are considered to have an influence on identity salience: identity primes and social distinctiveness. The present study uses priming of social and personal identities as the tool to activate the respective identity. Given the main interest of the study in the interplay of the identity appeals of the advertising message frame (collective or individual) and primed identity (social or personal), the following hypotheses are formulated:

Hypothesis 1a: Advertising message framing matched with primed identity yields more favourable attitudes toward the brand, as opposed to the condition in which the advertising message framing does not match with primed identity of the individual

Hypothesis 1b: Advertising message framing matched with primed identity yields more favourable attitudes toward the ad, as opposed to the condition in which the advertising message framing does not match with primed identity of the individuals.

Hypothesis 1c: Advertising message framing matched with primed identity yields higher levels of purchase intentions, as opposed to the condition in which the advertising message framing does not match with primed identity of the individuals.

Self-Construals and Social Identity Theory

The identity priming method used in this paper first appeared in the study by Trafomow, Triandis and Goto (1991) and has been used to manipulate self-construals. It is important to note how this paper combines social identity and self-construal theories. Self-construals are defined by Markus and Kitayama (1991) in their studies on culture and the self as being the particular views people have of themselves. Self-views are described as construals of the self that comprise a configuration of internal attributes of the individual that consequently affects human behaviour. Self-construals are believed to originate from various cultures, which hold particular normative tasks for the individuals. For instance, Japanese (Eastern) culture puts emphasis on interdependent relationships between the self and the others, whereas American (Western) culture views an individual as a more independent entity. Hence, the present study borrows the notions of the independent and interdependent self-view, specifically taken out of the studies on identities in the context of cultural differences, and attempts to apply them to social identity theory.

Environmental Consciousness, Green Purchase Behaviour, Green Knowledge and their Effects on Sustainable Consumption

As it has been outlined in the literature, environmentally conscious individuals have a greater tendency to pay a price premium to firms that implement green practices (DiPietro et al., 2013; Kang et al., 2012; Laroche, Bergeron & Barbaro-Forleo, 2001). Green advertising, on the other hand, has had a relatively low level of credibility attributed to it, as has been reported consistently in the previous decades (see, for example, Fisk, 1974; Carlson, Grove & Kangun, 1993; Iyer & Banerjee, 1993), as well as in more recent publications (Finisterra do Paço & Reis, 2012; Sheehan & Atkinson 2012). In their analysis, do Paço and Reis (2012) state that “consumers who are more environmentally concerned do not consider green advertising convincing” (p. 159). This argument supposedly complicates the promotion of green products for those who know more about the environment. Reasons for consumers to be unfavourable towards green advertising include vagueness, overly-ambitious claims, and previous flawed corporate attempts to project a green image (Zinkhan & Carlson, 1995; Carlson, Grove & Kangun, 1993). Environmentally conscious respondents also perceived green products as inferior in their effectiveness more often than those who were less environmentally aware (Lin & Chang, 2012).

In contrast to these findings, the study by Matthes and Wonnenberger (2014) revisiting the assumption that green consumers tend to be sceptical towards green advertising, found that green, or environmentally involved, consumers trust green advertising more compared to non-green consumers. These often contradicting findings leave the role of environmental involvement in advertising perceptions open for investigation.

For instance, in a study by Hu, Parsa and Self (2010) environmental concern is an

important predictor of consumers' pro-environmental behavioural intentions. More recent evidence (Chang, Zhang & Xie, 2015) shows that environmental concern and its interaction effects with message framing and construal level (i.e. the representation of the self) has linked high levels of environmental involvement with a more favourable response towards green advertising. Empirical evidence of the study by Hartmann and Apaolaza-Ibáñez (2012) has also confirmed the influence of consumer's environmental concern on their willingness to purchase sustainably-sourced electricity at a premium price.

In the literature, environmental concern is deemed to participate in consumer attitudes and behavioural intentions formation. However, the characteristics of green purchase behaviour, green knowledge and environmental concern and their impact on the effects of green advertising are not well understood. Since the present study uses mock brands in the ad stimuli, conditional effects of environmental involvement is not presumed to affect the brand attitudes. Based on the previous findings, this study proposes that consumers' environmental consciousness, green knowledge and green purchase behaviour will moderate the green advertising effects. The second set of hypotheses is as follows:

Hypothesis 2a: Individuals who report higher levels of concern for the environment are more likely to express positive attitudes toward the advertising and higher purchase intentions. In contrast, those who are less concerned about the environment will not differ in their responses to green advertising.

Hypothesis 2b: Individuals who report higher levels of environmental knowledge are more likely to express positive attitudes toward the advertising and higher purchase

intentions. In contrast, those who are less knowledgeable about environmental issues will not differ in their responses to green advertising.

Hypothesis 2c: Individuals who report higher levels of green purchase behaviour are more likely to express positive attitudes toward the advertising and higher purchase intentions. In contrast, those with lower levels of green purchase behaviour will not differ in their responses to green advertising.

There exists a considerable body of literature on the causal relationship between the measures of advertising effectiveness that generally suggests that attitude toward the ad triggers a direct one-way causal effect on the attitude toward the brand (Lutz, 1985; MacKenzie & Lutz, 1989), which in turn has a direct causal effect on purchase intentions (MacKenzie et al., 1986; Sallam & Wahid, 2012). This dual mediation model was first conceptualized by Shimp (1981) as the Affect Transfer Hypothesis, has been well documented in marketing research, and serves as a theoretical foundation for the mediation relationships between ads, consumers' attitudes, and buying intentions (Gardner, 1985; MacKenzie et al., 1986; Homer, 1990). Accordingly, the present study applies the dual mediation effect of consumer attitudes to the purchase intentions formation process (Figure 1).

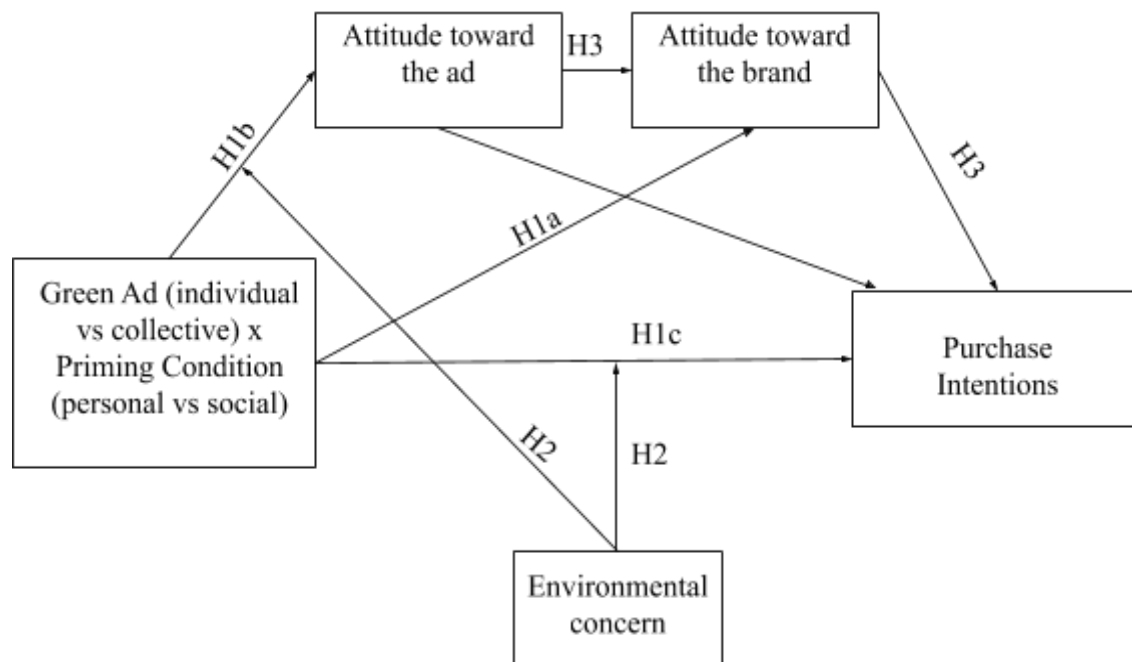


Figure 1. Conceptual model of the study.

Attitude toward the brand was investigated earlier as a factor having both direct impact on purchase intentions (Hartmann & Apaolaza-Ibañez, 2012; Clark et al., 2003), and in terms of its moderating role in pro-environmental behaviour (Hines, Hungerford, & Tomera, 1987; Fransson & Gärling, 1999). Applying the empirical evidence of precedent studies to the present research goals, it can be assumed that the customers' purchase intentions are both caused directly by an interplay of advertising and identity salience and indirectly through the brand and advertising attitudes. In line with the findings, I propose three subsequent final hypotheses:

Hypothesis 3a: The joint effect of identity priming and advertising message framing on purchase intentions is mediated by attitudes toward the advertising.

Hypothesis 3b: The joint effect of identity priming and advertising message framing on purchase intentions is mediated by attitudes toward the brand.

Hypothesis 3c: Attitudes toward the ad and attitudes toward the brand act as two consequent mediators of advertising effects on purchase intentions.

Method

For this research a 2 (activated identity: social versus personal) x 2 (advertising message frame: individual versus collective) between-subjects factorial online experiment was chosen as the main data collection with two types of identity appeals of the ads and two priming conditions.

Manipulation and Stimuli

Prior to being exposed to the ads, all participants were primed to either social or personal self-concepts by identity (or self-construal) priming manipulation exercise, the so-called “similar/different” exercise (see Appendix B). The exercise consisted of asking the participants to think for a couple of minutes of what they have *in common* with their family and friends (in social-identity or interdependent condition) and about what makes them *different* from their family and friends (in self-identity or independent condition) and to write down their answers, in as many details as possible, in a special window for text input. This “similar/different” technique of manipulation of self-construals (i.e. the representation of the

self) was adapted for this research from the study by Trafimow, Triandis and Goto (1991), which was demonstrated to have the strongest effects in producing differences in public and private self-construal ($d=.44$; $n=4$) (Oyserman & Lee, 2008).

Print advertising is extensively used to promote environmentally-friendly consumption, which makes it a suitable medium to test hypotheses of the present study (Lafferty & Edmondson, 2009). Two versions of the advertising stimuli promoting three environmentally-friendly brands were created for this experiment (see Appendix A). The advertised brands share the purpose of replacing the traditional objects made of single-use plastic, namely a toothbrush, a water bottle and a phone case. To avoid the confounding effect of prior brand attitude, fictitious brand named ‘bamboo’(toothbrush), ‘uno’ (bottles) and ‘vita’ (phone case) were used to create the advertising stimuli. Visual and linguistic elements composing the stimuli were chosen to match authentic print ads, with an emphasis on consumer behaviour and emotional appeal that stresses the reader’s ability to make a difference (Banerjee, Gulas & Iyer, 1995; Iyer & Banerjee, 1993).

Advertising message framing was manipulated using words referring to either individual (“you”, “your”), or collective (“us”, “our”, “we”) call for action (see Appendix A). Participants were randomly assigned to one of the four experimental conditions, two of which had advertising messages aligned with the identity priming (i.e., personal identity priming and personal message framing of the ad).

Procedure

Participants received a pre-manipulation questionnaire, followed by the priming exercise and priming manipulation check. Right after that, participants were exposed to three different ads that presented an identity appeal manipulation and described green products.

Finally, participants were given a post-manipulation questionnaire measuring their attitudes towards the advertising and brands, products' perceived green effectiveness, and were asked to provide their demographic information. To minimize learning effects, participants were asked not to refer back to the advertisement during their evaluations. They were also invited to complete the questionnaire at their own pace. Most participants took approximately 15 minutes to complete the questionnaire.

Measures

At the beginning of the survey participants responded to the questions aimed to measure their concern for the environment, green purchase behaviour and perceived green knowledge. Environmental concern was measured by 3-items 7-point Likert (Cronbach's $\alpha=.82$) scale that had been used by Schuhwerk and Lefkoff-Hagius (1995). Participants were asked to agree or disagree with the statements on the state of the environment. Further, green purchase behaviour was measured on the eight-item, 7-point Likert scale (Cronbach's $\alpha=.89$) adapted from the studies of Chang (2011), Shrum, Mccarty, & Lowrey (1995), and Kim and Choi (2005). Perceived green knowledge was measured on a three-item, 7-point Likert (Cronbach's $\alpha=.80$) scale developed by Mohr et al. (1998) and by four additional questions about common environmental issues.

After being exposed to the priming exercise, the participants were asked to report the extent to which they think about themselves or their family on a six-item, 7-point scale, adapted from the study by Aaker and Lee (2001) measuring the effects of identity priming manipulation. Scales were reliable for both personal identification (Cronbach's $\alpha=.89$) and social identification (Cronbach's $\alpha=.85$).

Purchase intention, the main outcome variable of the present study, generally refers to

consumers' willingness to purchase advertised products. Intentions capture the motivational factors that influence the green purchase behaviour of consumers (Ramayah, Lee, & Mohamad, 2010). Purchase intentions in this study were measured by a single-item, 7-point scale anchored by: "definitely would not buy" and "definitely would buy", adapted from Batra and Ray (1986). The items were found to be highly reliable (Cronbach's $\alpha=.96$). Attitude toward the ad (A_{ad}) was measured on a reliable (Cronbach's $\alpha=.88$) four-item, 7-point Likert scale, anchored as "bad/good, unpleasant/pleasant, unfavourable/favourable and unconvincing/convincing". Finally, an individual's attitude toward the brand (A_b) was measured on a five-item 7-point Likert scale (Cronbach's $\alpha=.88$) developed by Spears and Singh (2004).

Participants

A total number of 180 respondents were recruited for participation in the online experiment using snowball sampling. The participant sample included 103 female participants (57%) and 72 male participants (43%). The sample as a whole was relatively young and the majority (87,2%) of the participants are 18 to 34 years old. Since the link to the questionnaire was distributed among university and college students, approximately 80% of the respondents have earned at least a bachelor's degree.

Results

Manipulation Checks

To assess the identity priming manipulation, an independent sample t-test was conducted. The test revealed that participants in the social ('us') priming condition expressed higher level of collective self-view ($M= 4.16$, $SD= 1.34$) than those in the personal ('me') priming condition ($M=5.05$, $SD=1.24$; $t(178)=-4.61$, $p < .01$). Results indicate the same

direction when two priming conditions were tested in relation to individual self-view items in which social priming condition scored more on average ($M=5.47$, $SD=1.03$) than personal priming condition ($M=4.77$, $SD=1.29$, $t(178)=4.01$, $p<.01$). Results indicated that the identity priming tool increased either social or personal identity salience of the participants in the respective groups.

To check whether the message framing of the ad was perceived differently in two experimental conditions (the collective, ‘us’, versus the individual, ‘you’ framing), participants were asked to indicate whether the ad they just saw is individually- or collective-oriented, i.e. if it is rather “collective/individual”, “public/private”, targeted at “us” or “me”. This three-items, 7-point scale, measure appeared to have a good reliability score ($\alpha=.81$). An independent t-test revealed that the advertising with collective message framing was perceived as such ($M=2.61$, $SD=1.37$), whereas the advertising images with individual-oriented message frame seemed rather personal and individual ($M=3.74$, $SD=1.72$, $t(178)=4.86$, $p<.01$), according to respondents. The manipulation of both ad message framing and identity priming was successful.

Additionally, respondents were asked to evaluate the environmental appeal of the advertised products. A three-item, 7-point Likert scale ($\alpha=.73$) revealed the extent to which the products were perceived as eco-friendly and sustainable. Results indicated no significant difference between the groups exposed to different advertising stimuli ($p>.05$) and that on average, respondents found the promoted products rather safe for the planet and environmentally-friendly ($M=5.66$, $SD=1.09$).

Hypotheses Testing

Hypotheses 1a, 1b and 1c proposed that when individuals are exposed to the advertising congruent with their primed identity they should have more favourable attitudes toward the ad and attitudes toward brands as well as score higher on purchase intentions. To test this assumption, two experimental groups were contrasted using a new dummy variable, coded as '0' for no advertisement-identity alignment (hereafter used as a reference group) and '1' for advertisement-identity alignment conditions.

One-way analysis of variance (ANOVA) revealed a significant effect of the ads and identity interaction on purchase intention for reusable water bottle ($F(1, 178) = 11.00$, $p = .001$) and toothbrush ($F(1, 178) = 5.16$, $p = .024$). No significant differences were found in the attitude toward the brand or attitude toward the ad for all three advertised items ($p > .05$).

Hypothesis 1a and 1b, therefore, are both fully rejected. Contrary to expectations, alignment of primed identity with the message framing of the advertising does not elicit substantial differences in consumer attitudes toward the brand and the ad. Purchase intentions of the participants, however, were significantly and positively impacted by the alignment of ads and individuals' primed identity for two out of three advertised products (see Table 1 and Table 2). Hypothesis 1c, therefore, is partially supported, i.e. the alignment of identity with the ad does elicit higher purchase intentions in contrast with the reference group, for which the ad stimuli and primed identity were not aligned.

Table 1

One-way analysis of Variance of reusable bottle purchase intentions by identity and advertising alignment

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	25.37	25.37	11.00	.00
Within Groups	178	410.27	2.30		
Total	179	435.64			

Table 2

One-way analysis of Variance of toothbrush purchase intentions by identity and advertising alignment

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	16.30	16.30	5.16	.02
Within Groups	178	561.5	3.15		
Total	179	578.6			

Further, Hypotheses 3a and 3b proposed that people should demonstrate higher purchase intentions as the result of the indirect effect of ads and identity alignment through attitude toward the ad and attitude toward the brand. Hypothesis 3c suggested that the attitudes should function as serial mediators in their effects on purchase intention. To test these hypotheses coefficients for the hypothesized direct effect of advertising-identity congruency on purchase intention were estimated. Furthermore, total and specific indirect effects on purchase intentions through attitudes toward the ad and toward the brand, with A_b

and A_{ad} functioning as serial mediators were tested in the same model. To test the moderation effect of environmental consciousness, perceived green knowledge and green purchase behaviour, moderated mediation analysis was performed using Model 86 in PROCESS Macro (Hayes, 2013) for SPSS. Age of participants, level of education, English language skills and gender were included in the analysis as control variables.

Results (summarized in Table 3) partially support the hypothesized positive influence of advertising-identity alignment on purchase intention directly and through the attitude toward the brand. Estimated effect was significant for one out of three advertised brands, namely, the reusable bottle brand. For two other brands advertised in the experiment, the bamboo toothbrush and the phone case, test results revealed no significant interactions with the predictor variable.

The experimental condition where advertising was aligned with the primed identity (AAWP) showed a positive and significant effect on consumers' purchase intentions ($b = .48$, $SE = .18$, $p < .05$), in contrast with the control condition, where advertising stimuli was not aligned with consumer identity. An indirect effect of the advertising-identity alignment on purchase intention was to some extent mediated by attitudes toward the brand ($b = .26$, $LLCI = .02$, $ULCI = .53$).

The analysis revealed no significant indirect effects of advertising-identity combination on purchase intentions found for the biodegradable phone case or bamboo toothbrush brands. Possible reasons for the non-significant effects of different green products ads will be provided in the discussion section.

Table 3

Conditional Direct and Indirect Effects of Advertising-Identity Alignment on Reusable Bottle Purchase Intentions

Variables	Attitude toward the Ad		Attitude toward the Brand		Purchase Intention	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
AAWP ^a	0.02	0.15	0.29*	0.3	0.48*	0.18
Environmental Concern	0.35***	0.08			-0.03	0.10
AAWP ^a x Environmental Concern	-0.57	0.16			-0.11	0.19
Attitude toward the Ad			0.66***	0.06	-0.07	0.11
Attitude toward the Brand					0.79***	0.10
Gender	-0.11	0.14	-0.06	0.12	0.20	0.17
Age	-0.17	0.10	-0.06	0.09	0.05	0.12
Education	0.10	0.11	-0.10	0.11	-0.06	0.14
Language skills	0.01	0.12	-0.10	0.11	0.24	0.14
<i>Explained Variance</i>		.35		.62		.66

Note. ^a Advertising Aligned With Priming;

Macro PROCESS 3, Model 86 with 5,000 bootstrap sample; *N* = 180

Unstandardized coefficients

Control condition inserted as a reference group

*** *p* < .001; ** *p* < .01; * *p* < .05.

Additionally, attitude toward the advertising was shown to have a significant and positive effect on attitude toward the brand ($b=.66$, $SE=.06$, $p<.05$), though only the latter is directly caused by the advertising and identity match. Hypothesis 3c is, therefore, rejected, as the analysis did not reveal any significant effects of advertising-identity alignment on consumer attitudes toward the ad.

The correlation between the attitude toward the ad and attitude toward the brand is noteworthy because it corresponds to the postulate of the affect transfer hypothesis (Shimp, 1981) theory, which posits that A_{ad} is related to A_b which, in turn, affects consumers' intentions to purchase the advertised products.

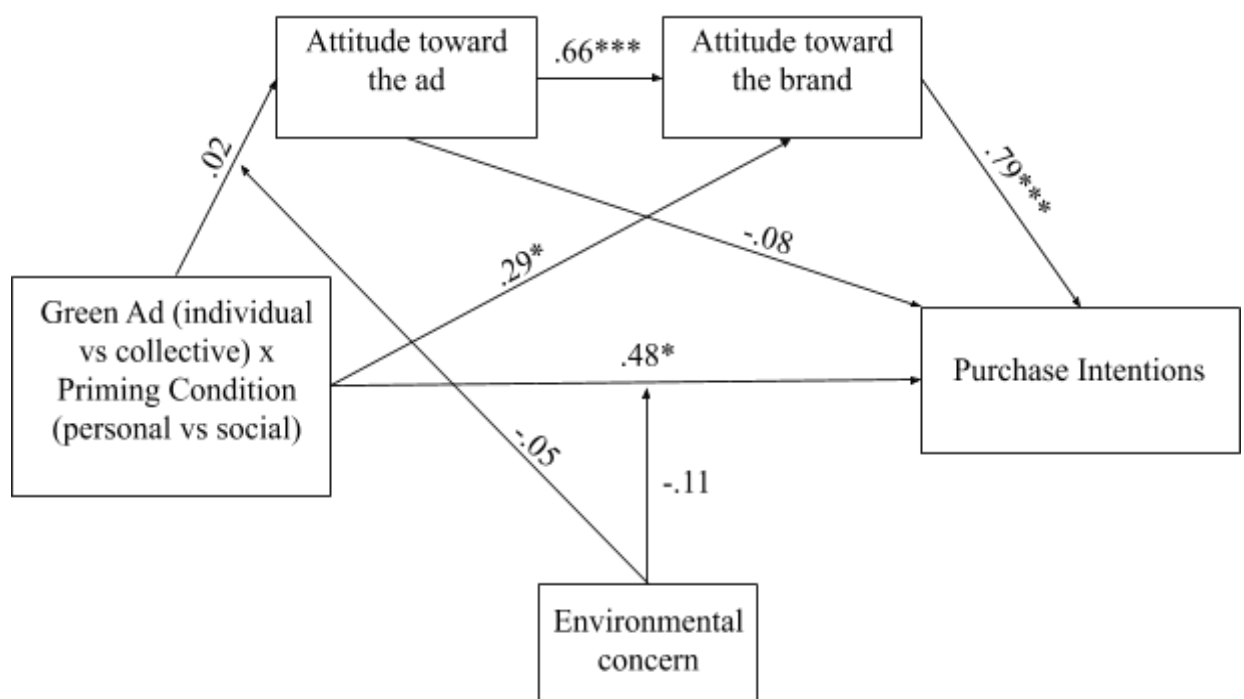


Figure 2. Conceptual model of the study with estimated coefficients for reusable bottle purchase intentions.

Finally, hypothesis 2 (a,b,c) presumed that the reported levels of environmental concern, environmental knowledge and previous green purchase behaviour would have an impact on the effects advertising-identity alignment shows for consumer attitudes and/or purchase intentions. Final model testing did not reveal any statistically significant interaction of the hypothesized moderators and the independent variable. Hypothesis 2 is also fully rejected.

Discussion

Advertising effects and identity salience are complex processes in and of themselves. This study aimed to better understand these phenomena and their relationship by examining green advertising effects in the context of consumers' primed social or personal identity.

The effectiveness of green appeals in advertising, as shown in the literature, depends on different conditions, such as product type (Kong & Zhang, 2014), prior involvement with the environment (Schuhwerk & Lefkoff-Hagius, 1995), previous reputation of the company (Phau & Ong, 2007) and many more. The present study is an attempt to account for a few moderators related to environmental attitudes and behaviours of consumers, namely, environmental involvement, i.e. the degree of concern and amount of knowledge about the environmental issues as well as green purchasing behavior. Effects of environmental concern on consumer behavior and green buying were shown to be limited in a study of Manieri et al. (1997). Similarly, no significant expected association was observed between the variables comprising environmental involvement and the main outcome variables in the present study. Absence of moderating effects might have been caused by the homogeneous characteristics of the sample, which on average demonstrated relatively high levels of environmental concern ($M=5.59$, $SD=0.93$), and green purchasing behavior ($M=5.16$, $SD=1.13$). Previous

research on the relationship between socio-demographic variables and green consumption has generally suggested that green consumers tend to be young, liberal, female and well-educated (Hines, Hungerford, & Tomera, 1987; Roberts, 1993; Olli, Grendstad & Wollebaek, 2001; Gilg, Barr & Ford, 2005). These characteristics coincide with those of the sample in the present experiment. Since the majority of the respondents reported higher than the media levels of environmental concern, its interaction with other factors was reduced to statistical non-significance.

Identity priming and its effects on advertising perceptions was the central focus of the present study. Social identity theory suggests that there's a continuum between personal and social identity of the individual on which he or she shifts and which determines group-related or personal characteristics influencing his or her feelings and actions (Tajfel et al., 1979). Social identity theory also considers the contextual salience of a particular identity to be responsive to immediate situational cues (Terry, Hogg & White, 1999). On this basis, this study has made an attempt to access and "activate" a particular identity of the study participant. The method for the experimental manipulation of the identity was adapted from the studies of self-construal and self-view, that take the perspective similar to that of social identity theory in terms of collective (interdependent) and individual (independent) self-categorisations (Singelis, 1994; Brewer & Chen, 2007; Cross, Hardin & Gercel-Swing, 2011).

Although the effects of identity priming were analyzed in its combination with the green ad that either confirmed the primed identity or contradicted it, it is interesting to note that this identity priming method was implemented in an online experiment for the first time. Results of this method demonstrated the inferiority of the online priming technique efficiency

compared to that of the usual, laboratory-set experimental studies. For instance, when people were asked to write down what makes them similar to or different from other people, they were asked to give elaborate answers and to take time to process their arguments. This would push the social identity group, for instance, to achieve the depersonalized sense of self, “away from the perception of self as a unique person” (Turner et al., 1987, p.50). In contrast, for the personal identity priming condition the emphasis was put on the differentiated, individuated self-concept of the participants. Although the results indicated substantial differences of the priming method used in this experiment, it is rather difficult to control the efficacy of this priming technique.

In the original identity priming experiment conducted by Trafomow, Triandis and Goto (1991), participants were asked to think about what makes them similar or different from their family and friends for two minutes, and what their family and friends would expect the participant to do. The present study required the participants not only to think about what makes them different/similar to their close circle of family and friends, but also to write their answers down to strengthen the manipulation. However, given the conditions of an online experiment, it is difficult to control the environment in which a participant is surveyed and how much time people dedicate to the exercise. For instance, 58,9% of participants in the present study spent less than a minute on the page with the priming exercise. Some of the answers provided by the participants were also short and lacking in detail, varying from a few words to a few sentences. This inconsistency in elaboration could be the cause for inaccuracies in the obtained results.

Green advertising stimuli in this study were manipulated in terms of two extremities of identity cues, using linguistic elements that were meant to appeal to either the social or

personal identity of an individual. Final effects of the hypothesized combination of the advertising and the primed identity of the individual were different in two experimental groups. Because the effects of this interaction were significant for one brand out of three, the main hypothesis of the study is only partially confirmed.

Moreover, strong effects of attitude toward the ads on brand attitude support the affect transfer hypothesis, which posits a causal relationship between the two. However, given that purchase intentions were not mediated by both advertising and brand attitudes with only the latter having a statistically significant coefficient, the independent influences hypothesis could be used to explain this relationship better. The *independent influences hypothesis*, as proposed by Howard (1977, p. 22-33) does not assume affect transfer process between attitude toward the ad and attitude toward the brand, and instead treats both constructs as independent antecedents of consumers' purchase intention. Given that in the present experiment, three brands used in advertising stimuli were fictitious and had no previous impression on the participants, it can be argued that the properties of the brand were perceived by the participants as closely attached to the properties of the advertised products themselves (Mehta, 2000; Howard, 1977), which weakened the effects of the advertising but positively affected recipients' reactions to the brand.

A similar process can in part explain the absence of advertising and identity interaction effects regarding purchase intentions for two other mock brands, i.e. the bamboo toothbrush and a phone case. The toothbrush brand's ad might not have had significant effects due to its low product involvement level and/or, as it often happens with the "greener" alternatives to generic products, it might have been perceived as less attractive and effective than its usual plastic analogue (Durif, Roi & Boivin, 2012). As to the biodegradable phone

case ad, another low-involvement product, it is a complementary product produced and sold for the specific smartphone model. Thus, displaying phone cases for one phone model in the print ad might to some extent explain the disinterest of the participants in purchasing of this product. Finally, the reusable water bottle brand possibly got a positive and significant response from the participants due to its already established and growing market success (Factmr, 2018).

A managerial implication that could be derived from the present study is the adjustment of the print ads promoting green consumerism in specific contexts. This could potentially lead to more favorable affective and intentional reactions from the people. For instance, an ad with a socially-oriented message placed in a typically crowded space, such as a football stadium or a concert hall, could be perceived by most of the recipients who already have an activated collective or social identity.

Limitations and Future Studies

The present study carries several limitations and leaves a few areas for future research. First of all, making features of individualism and collectivism salient allows for the development of specific and testable research models. The present study is an attempt to integrate identity manipulation methods in its research design, although its final inferences are limited in two ways. First, an understanding of how certain identities influence cognition, motivation and behaviour, requires a systematic experimental approach (Oyserman & Lee, 2007), rather than a single experiment. Second, priming literature generally recommends to consider the effects that culture and prescribed group norms have on the process of cognition of advertising and for green consumption (Markus & Kitayama, 1991; Hagger, Rentzelas & Koch, 2014). Given that the participants of the experiment resided in 39 different countries at

the time of participation, it was not possible in the present study to take into account the impact of the cultural norms on consumers' processing of ad information.

Further, the results of the present experiment may be limited due to the characteristics of the participant sample. Since the participants were recruited online using the snowballing sampling method, the sample turned out to be diverse in terms of country of residence, but rather homogeneous in terms of age, gender and level of education. This might have threatened the external validity of gathered results. Future research is needed to replicate the interactive effects of green messages and activated identity using samples with broader demographic (e.g., age, education, income) characteristics to enhance population validity of the findings.

The relationship between people's identities and their behavior is undoubtedly complex, and warrants thorough explanation. Future research on advertising is needed in order to explore other dimensions of consumer's identities that are possibly related to green consumerism, such as, for example, self-identification with a nation or a community . Another interesting issue to investigate would be the effects of the native green advertising online, given the growing strength of green consumers' social networks (Crane, 2010), and its connection to the green identity.

Abstract

Growing demand for sustainable development is driving marketers around the world towards more environmentally friendly goods. Green advertising plays a crucial role in promoting sustainable products and environmentally friendly consumption. A link between the effects of green advertising and consumer identity is yet to be established, despite its increasing relevance in the age of personalized and targeted advertising and growing consumer identity. The main topic of this research project lies in the effects of green advertising with a social or personal identity frame and consumers' situationally primed self-identity. This experimental study examines two identity priming conditions to assess their impact on attitude-toward-the-ad, attitude-toward-the-brand, and intentions to purchase environmentally safe products.

A sample of 180 participants was exposed to advertisements of three fictitious green brands in an online experiment. Results of the experiment confirm some of the predicted effects of primed identities and green advertising message alignment on consumer attitudes and purchase intentions. Additionally, this study investigates the moderating role of individuals' environmental involvement in this relationship.

Keywords: green advertising, social identity, personal identity, brand attitudes, green consumption

Abstrakt

Weltweit hat die wachsende Nachfrage nach nachhaltigen Entwicklungen Marktakteure zur Produktion nachhaltiger Produkte angetrieben, bei deren Vermarktung sogenannte „grüne“ Werbung eine entscheidende Rolle spielt. Diesbezüglich und in Zeiten gezielter, personalisierter Werbemaßnahmen, stellt das Zusammenspiel von Verbraucheridentitäten und Werbeeffekten ein äußerst relevantes Thema dar, das bisher unzureichend im Rahmen wissenschaftlicher Forschung aufgegriffen wurde. Entsprechend liegt das Hauptaugenmerk dieses Forschungsprojekts auf der Untersuchung des Wirkungsspiels von sozialen und personenbezogenen Identitätsmerkmalen im Kontext der Bewerbung umweltfreundlicher Produkte. Anhand eines Experiments wurde der Einfluss von Priming mittels dieser Identitätsmerkmale auf die Haltung gegenüber der Werbebotschaft und der Marke sowie auf die Kaufabsichten untersucht. Eine Stichprobe von 180 Teilnehmern wurde im Rahmen eines Online-Experiments mit Werbeanzeigen für drei fiktive, umweltfreundliche Marken konfrontiert. Die Ergebnisse bestätigen, dass sich die Identitäten von Individuen im Kontext umweltfreundlicher Werbung auf die Haltung gegenüber der Marke und der Werbebotschaft sowie auf die Kaufabsichten, auswirken. Darüber hinaus untersucht diese Studie die moderierende Wirkung des Involvements von Individuen in diesem Wirkungszusammenhang.

Schlagworte: grüne Werbung, soziale Identität, persönliche Identität, Markeneinstellungen, grüner Konsum

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Appendix A

Advertising Stimuli Designed for the Experiment



Figure 1. Advertising stimulus for a fictitious plastic-free phone case brand “Vita Case”.

Social identity condition (on the left); personal identity condition (on the right).



When we brush with plastic toothbrushes, we contribute to over 22679 tonnes of plastic waste every year.

QUIT PLASTIC - BRUSH WITH BAMBOO

OUR CHOICES MATTER

bamboo brush

Made with certified 100% organic bamboo.
Free worldwide shipping.
All of our products are Verified BPA-Free, Vegan, Non-GMO, Gluten-Free and Non-toxic.
For more information visit bamboochoices.com

Logos: EU Organic, FSC, and a circular logo with a leaf.



When you brush with a plastic toothbrush you contribute to over 22679 tonnes of plastic waste every year.

QUIT PLASTIC - BRUSH WITH BAMBOO

YOUR CHOICES MATTER

bamboo brush

Made with certified 100% organic bamboo.
Free worldwide shipping.
All of our products are Verified BPA-Free, Vegan, Non-GMO, Gluten-Free and Non-toxic.
For more information visit bamboochoices.com

Logos: EU Organic, FSC, and a circular logo with a leaf.

Figure 2. Advertising stimulus for a fictitious brand of toothbrush. Social identity condition (above); personal identity condition (below).

plastic
/'plastɪk/ ⓘ
noun
noun: plastic; plural noun: plastics

1. The average time for a plastic bottle to completely degrade is at least 450 years. Over 1 million marine animals are killed each year due to plastic debris in the ocean.

WE CAN'T LET THIS DEFINE US!



plastic
/'plastɪk/ ⓘ
noun
noun: plastic; plural noun: plastics

1. The average time for a plastic bottle to completely degrade is at least 450 years. Over 1 million marine animals are killed each year due to plastic debris in the ocean.

DO NOT LET THIS DEFINE YOU!



Using UNO bottles helps to reduce plastic waste.
The future of the planet is in our hands.



Use UNO bottles and help to reduce plastic waste.
The future of the planet is in your hands.



Figure 3. Advertising stimulus for a fictitious brand of reusable bottles “UNO”. Social identity condition (on the left); personal identity condition (on the right).

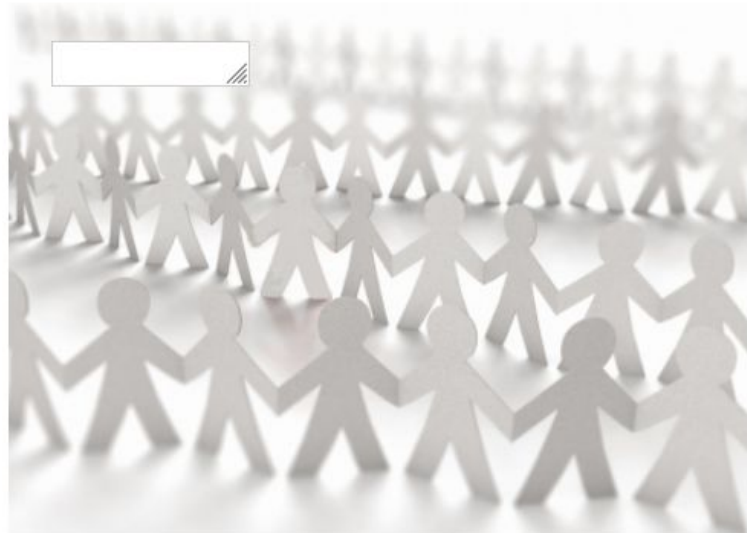
Appendix B

Identity Priming Exercise Used in the Experiment

1. For the next two minutes, you will not need to write anything.

Please think of what you have IN COMMON with your family and friends.

When you are ready, write down your answer in one complete sentence or at least a few words.



2. For the next two minutes, you will not need to write anything.

Please think of what makes you DIFFERENT from your family and friends.

When you are ready, write down your answer in one complete sentence or at least a few words.

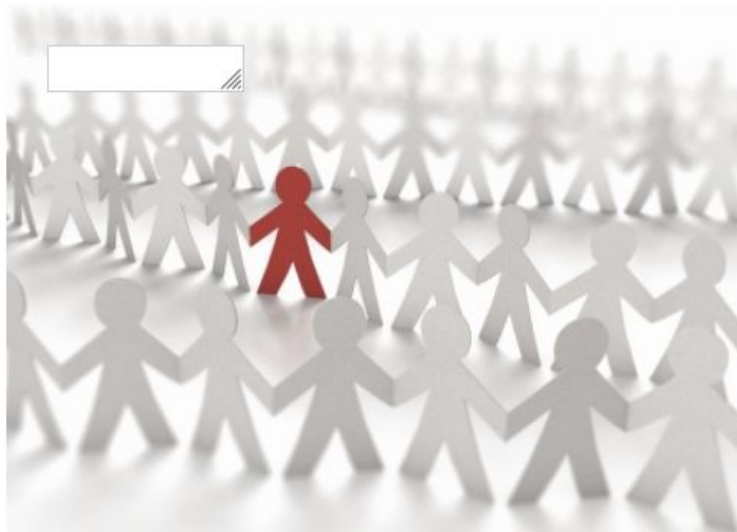


Figure 1. Similar/Different exercise for the experiment participants (above: social identity condition; below: personal identity condition).