The thin win: Implicit preference for slim models in advertising

1. Introduction

Research in consumer psychology suggests that much of human behaviour is influenced by non-conscious, uncontrolled, unobserved processes in memory (Bargh, 2002; Greenwald, Nosek & Banaji, 2003). However, increased attention to these implicit processes and associations within academic work did not necessarily stimulate the use of such methods in marketing research practice. Stüttgen, Vosgerau, Boatwright, & Messner, (2009) emphasise the attractiveness of implicit methods outside academia, but also mention the debate over these methods’ reliability and validity as a main hurdle for wide-spread use in commercial marketing research. Explicit measures remain the most important component of any marketing research program. This research therefore, intends to expand knowledge on consumer research using methods studying implicit processes.

Non-conscious, automatic and unobserved processes in memory are important in advertising. Research in this field has relied almost exclusively on explicit measures, dependent on conscious evaluation and deliberation. Although these theories are essential to researchers in the field, they often neglect the potential role of implicit or automatic processes (Perkins, Forehand, Greenwald, Maison, 2008). This study demonstrates that implicit measures add incremental value beyond explicit measures.

2. Background from the literature

For the present study we apply the Implicit Association Test (IAT) to the context of attractiveness in advertising. We first present a literature review of the two topics.

Attractiveness in advertising

In advertising, highly attractive models are widely used as endorsers (Bower, 2001; Gulas & McKeage, 2000). Because physical attractiveness is an attribute of high value, “decorative,” attractive models in advertisements are mostly female (Saad, 2004). Products accompanied by an attractive model evoke a more positive attitude towards that product and a higher willingness to buy the product (Buunk & Dijkstra, 2011). Content analysis studies over extended time periods demonstrated that the frequent use of women as young and attractive decorative models is longitudinally stable and culturally invariant (Saad, 2004). For further information and theoretical background on the “what is beautiful is good”-stereotype see Swami & Furnham (2008) and the meta-analysis of Eagly, Ashmore, Makhijani & Longo (1991) and Hosoda, Stone-Romero & Coats (2003).

The underlying mechanism in this stereotyping is straight forward. Models of the same gender presented in advertisements serve as comparison targets for the viewer. The positive responses to attractive models are primarily the result of assimilation. Following social comparison theory individuals feel (often on the implicit level) that they are similar to, or may in the future become like, this attractive model (Buunk, 2011). For a review see also Buunk & Gibbons (2007).

In a recent study Buunk & Dijkstra (2011) demonstrated that women were willing to pay more for the product when it was promoted by an attractive model. The women in this same study also showed a more positive attitude toward the product, when it was promoted by an attractive as opposed to a moderately attractive model.

In Western societies almost half of the women express concerns of body dissatisfaction (Ferguson, Munoz, Contreras, & Velasquez, (2011); Ferguson, B. Winegard, & B. M. Winegard, (2011). This dissatisfaction may be blamed to misplaced media and advertising...
ideals of beauty (Ferguson et al., 2011). In consequence, one can speculate that more realistic pictures in advertising would be beneficial and more credible as a source (Bower, 2001). Indeed, D’Alessandro & Chatty (2011) suggest that marketing practice (they cited the Dove “Real Beauty” campaign) can use more realistic, and possibly socially responsible depictions of a female body shape that matches their target audience. And indeed a quick search on the internet demonstrates that the company Unilever is well known for its Dove advertising campaigns featuring women of all ages, shapes and sizes, under the advertising claim "Campaign for Real Beauty". For a more in-depth scientific interpretation of the Dove-campaign see Millard (2009).

In the context of judging others during a survey interview the social desirability bias may distort the answers. The motivation behind socially desirable responding is a need of subjects to obtain approval by responding in a culturally appropriate and acceptable manner. Therefore, when answering questions on a sensitive topic, individuals tend to give answers that portray themselves (including others) in a more positive light (Lee, 2011). The present study may therefore provide results distorted due to perceived pressure to provide socially acceptable answers. In particular, we expect that explicit answers will be different from the implicit preference (Dimofte, 2010; Gattol, Sääksjärvi, & Carbon, 2011). At the same time we expect the IAT scores (see below) to be immune to faking (Greenwald et al., 2009).

Attractiveness works “subconsciously” (Praxmarer, 2006), or on the implicit level. If people are made aware to the attractiveness effect in some form, they may cognitively control the effect and change behaviour (Praxmarer, 2006). Attractiveness in advertising seems therefore a good example to explore the IAT more in-depth. The present research aims at demonstrating the usefulness of implicit measures such as the IAT.

The Implicit Association Test
Since the 1980s, much effort has been devoted to reaction time as an indication of automatic processes and activation of attitudes as well as associations. These processes have been mostly studied in the context of attitudes, stereotypes and prejudices (Greenwald et al., 2009). The development of such implicit measures is considered the most important contribution in social cognition research in recent time (Hofmann, et al.2005). In their meta-analysis Greenwald et al. (2009) identified 184 independent samples with a total of 14’900 subjects for the Implicit Association Test (IAT).

Perkins et al. (2008) reviewed applications in consumer psychology. They concluded that some studies find an adequate predictive validity, while some others did not. The authors concluded, that the implicit methods were superior in predicting behaviours when issues of stereotyping and prejudice are of concern. For the present study this is clearly the case. Respondents may use stereotypes towards beautiful women and may, in consequence, also be prejudiced. A recent study in Canada is in support of this claim. Brochu and Morrison (2007) demonstrated the presence of explicit and implicit antifat prejudice, with male participants showing greater negativity toward overweight targets. Between explicit and implicit measures of weight bias no significant relation occurred. This again confirms – as mentioned above - the socially desirable responding used by the participants.

Perkins et al. (2008) also found that the IAT is a useful measure, when consumers are under time constraints (see also Friese, Hofmann, & Wänke, (2008); Friese, Wänke & Plessner, 2008). This may again apply when exposed to advertising.
Summary of the literature review
Advertising triggers non-conscious and automatic processes in consumers. Many of those consumers will display some level of body dissatisfaction and will also tend to give socially appropriate answers. The IAT seems to be the method of choice in this setting. We expect that slim is associated with good. In the IAT the reaction time to the slim/good combination will be shorter than the time for the slim/bad combination (operationalized as D-measure; generally called IAT effect). We test for a general IAT effect (H1: D-measure different from zero), for differences in gender (H2) and differences to the explicit measures and stated preference (H3: no association between the D-measure and the explicit preferences).

3. Research method

For this IAT study we used a picture / word format, since the visuals in an advertising campaign are normally a central element. Pictures were taken mainly from the internet and pairs of attractive / less attractive key visuals for advertising were produced using commercially available software. The two pictures of each pair of photos were practically identical and included a women, a product logo and some background. We only manipulated the size of the women (slim and well-rounded). In two cases we used identical women and in two cases we used different women, but from very similar appearance, and again one slim model and one well-rounded model. In order to be as close as possible to the daily experience of advertising consumers we used four products as potential examples: a car (brand “Rolls Royce”), a shampoo (brand “En Gedi”), a watch (brand “Piaget”) and a sun lotion (brand “Hawaiian Tropic”). This resulted in four nearly identical twin adverts. A pre-test demonstrated that the adverts were almost identical to the daily experience of the pre-testers. For the explicit part of this research a very brief questionnaire was designed. First the participants had to indicate their personal preference for either one of the twin adverts (a choice task). They also indicated their gender and age. This explicit part included at the end a standardised instruction for the Implicit Association Test (IAT).

The IAT measure of implicit preferences for the two categories slim and well-rounded included the following pleasant and unpleasant stimuli (German translations of words was used in the IAT runs). Pleasant (good) words: happy, beautiful, pleasure, success, love, laugh, joy, attractive; unpleasant words (bad): pain, hurt, failure, bad, evil, cruel, ugly, repulsive. These stimuli were used previously in other published reports on the IAT. Stimuli representing the two target categories (slim / well-rounded) were the images mentioned above. The two pictures for each brand were similar in size and form.

Participants were informed that they were taking part in a consumer study about advertising preferences. First, participants were asked to complete the questionnaire that measured explicit preferences of the two alternative adverts. Immediately after completing the questionnaire, respondents completed the IAT task. They went through this procedure individually. The IAT software (Meade, 2009) involved five classification tasks:
1) single categorization for the two target concepts: slim versus well-rounded; 20 trials
2) single categorization for the attributes: good versus bad; 20 trials
3) combined categorization task and data collection trials: slim model pictures combined with good, versus well-rounded model pictures combined with bad; 40 trials data collection
4) single categorization for the attributes (as in task 1) but with reversal of the side of the screen on which the two attribute labels appeared; 40 trials
5) combined categorization task and data collection trials (as task 3) but reversed categorization of target categories
Participants were recruited from the university of the authors in Switzerland (60 volunteers). After completion the participants were debriefed and thanked for the support.

4. Results

A total of 60 people participated in this study. 29 were female and 31 were male. The age ranged from 18 to 59 years with an average of 28.9 years (standard deviation of 10.6 years). Table 1 presents the results of the explicit choice task. Male participants clearly indicated a preference for slim models in all four brand advertisings. The female participants also picked the slim models except for the Piaget brand (the model was maybe a little too attractive).

Table 1: Explicit choice task (frequencies). The asterisk indicates statistically significant differences between slim and well-rounded (binomial test; p≤ 5%).

<table>
<thead>
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<th>Male</th>
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<th>Female</th>
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<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>slim</td>
<td>Well-rounded</td>
<td>slim</td>
<td>Well-rounded</td>
<td>slim</td>
<td>Well-rounded</td>
</tr>
<tr>
<td>Rolls Royce</td>
<td>28*</td>
<td>1</td>
<td>31*</td>
<td>0</td>
<td>59*</td>
<td>1</td>
</tr>
<tr>
<td>Hawaiian</td>
<td>29*</td>
<td>0</td>
<td>25*</td>
<td>6</td>
<td>54*</td>
<td>6</td>
</tr>
<tr>
<td>Piaget</td>
<td>20*</td>
<td>9</td>
<td>14</td>
<td>17</td>
<td>34</td>
<td>26</td>
</tr>
<tr>
<td>En Gedi</td>
<td>26*</td>
<td>3</td>
<td>24*</td>
<td>7</td>
<td>50*</td>
<td>10</td>
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</table>

For the IAT data the software (Meade, 2009) uses the scoring algorithm of Greenwald, Nosek & Banaji (2003). This algorithm uses practice-block data, includes penalties for errors and uses individual-respondent standard deviations to calculate the D-measure. In other words, the reaction times to the slim/good combination will be shorter than for the slim/bad combination in the case of an implicit association. Large D-measures indicate strong associations between slim and good and weak associations between well-rounded and good. The IAT scores have a mean of 0.465 ± 0.301 milliseconds. This average response time is significantly different from zero (H1; t-Test; p≤5%). This indicates a significant implicit preference for the slim models. The participants implicitly associated slim with good and well-rounded with bad.

We also analysed the data on the basis of gender (H2). The IAT scores for the female respondents have a mean of 0.268 ± 0.287 milliseconds and for the male respondents a mean of 0.696 ± 0.228 milliseconds. For both sexes the average response time is significantly different from zero (t-Test; p≤5%). This indicates that both, males as well as females, have a significant implicit preference for the slim models. The males have a statistically significant higher preference for the slim models in the advertisements (t-Test; p ≤ 5%).

In order to test for a social desirability bias (H3), we divided the respondents into three groups. A first group consisted of individuals preferring only slim models (n=28). The second group included all respondents, that selected the well-rounded model in one out of four cases (n=21) and the last group picked two slim and two well-rounded models (n=11). None of the respondents picked more than two well-rounded models. In all three groups the IAT-effect was present (t-test; p ≤ 5%). An analysis of variance demonstrated no group effect (ANOVA; F=1.29; p ≥ 10%). Also the Scheffé procedure for ANOVA (data not shown) showed no
difference between groups. In conclusion, these results suggest that the explicit and the implicit preference are independent of each other.

5. Discussion

In the present study the IAT scores have a mean of $0.465 \pm 0.301$ milliseconds. This is a surprisingly high level indicating a very strong preference from the slim models. In their meta-analysis Greenwald et al. (2009) cite only studies in the area of political preferences at the same effect size level. According to their analysis consumer preference studies have a smaller effect size of 0.32 compared to for example 0.24 for gender IATs and 0.27 for race IATs. This very clear preference for slender models is confirmed by the explicit choice of the respondents. Anecdotal evidence from the debriefing sessions suggest that respondents were quite honest in their explicit preference. They claimed that in other social situations (other than the interview situation) they would provide more socially desirable answers. The high IAT scores from this study may also have to do with the level of representation of the words and pictures (Foroni & Bel-Bahar, 2009). The higher the level of representation the higher the IAT effect. Since our advertisements were very realistic, one would logically expect a higher than average IAT effect size.

The somewhat surprising result, that even women prefer slim models may be explained drawing on evolutionary psychology theory (Saad, 2004, Ferguson, 2011). Men use characteristics of beauty to discriminate among potential mates and, in consequence, physical appearance is an important component of reproductive success for women. Put in other words, body dissatisfaction mentioned in the introduction may have more to do with concerns about finding mates and less with displaced media and advertising ideals (Eagly et al., 2011). Ferguson et al. (2011) recently confirmed these findings. Their study showed that body dissatisfaction increased when competitive females were present. In their study they found little evidence for television exposure impacting body dissatisfaction.

Our initial point of departure was that individuals make several immediate and automatic appraisals. There is an nearly automatic tendency to categorise a women as attractive or unattractive (Gulas & McKeage, 2004). This automatic response and attractiveness appraisal affected the attitude toward the endorser (the model), which in turn has a positive impact on customer satisfaction in the future (Söderlund & Julander, 2008).

Our study confirms the findings of Swami and Furnham (2008). The “what is beautiful is good”-stereotype applies to advertising as well. Numerous studies and reviews of literature have consistently shown that physical attractiveness and appearance have an important effect on the judgments that humans make about others (Swami & Furnham, 2008, Hosoda et al. 2003, Eagly et al. 1991). These findings combined with our results suggest that the Dove advertising campaigns featuring women of all ages, shapes and sizes (Millard, 2009) may not be appropriate for most products. Dove was successful maybe because the campaign visuals were distinct from other visuals in the same product category.

In conclusion, this study demonstrates the usefulness of the IAT for studying consumer behaviour. Its application in marketing management practice is strongly encouraged (see also Stüttgen et al., 2009).

6. Limitations and suggestion for further research

There are several limitations of the present study. The pictures and advertising combinations that were used are a selection of beauty enhancing products. This may be different for other products (Praxmarer, 2006). Also, the participants were recruited in a single location and in Switzerland and, thus, the generalisability may be questioned.
7. References


