The influence of functional and symbolic metaphors on product perception

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Abstract

This study is about the perception of abstract product properties like a product's personality and the possible influence of metaphorical contexts and regulatory focus. In two experiments participants evaluated pictures of products via an online questionnaire in one of three context conditions, featuring a functional metaphor, a symbolic metaphor or a control condition. In the first experiment metaphorical context information with symbolically or functionally related content showed different effects for utilitarian and symbolic products. Functional metaphors enhanced perceived sincerity and competence in symbolic products while symbolic metaphors enhanced sophistication in utilitarian products. In a second experiment the effects of functional and symbolic metaphors on the perception of product personality and product attitude of a neutral product was investigated while controlling for the regulatory focus of participants. The results showed that regulatory focus had no effect on product personality perceptions.

Keywords: product personality, metaphor, symbolic, utilitarian, regulatory focus

The influence of functional and symbolic metaphors on product perception

Metaphorical advertising is a frequently used tool in contemporary product marketing (Agarwall, 2008; McQuarrie & Phillips, 2005). Whenever we watch an advertisement clip, in which the repairing agents of a vanishing crème or the cleaning particles of toothpaste are visualized ‘at work’, to give us an idea of how this new product benefits us, a metaphorical reference is drawn. The same applies to shampoo bottles which introduce themselves to be ‘attitude for your hair’ or barbecue sauces that are labelled to contain an ‘African safari’. Metaphors are often used in advertisement and have been shown to be beneficial on extensive ad processing (Toncar & Munch, 2001), dimensional thinking (MacInnis, 2004) and ad responses (McQuarrie & Mick, 1999; McQuarrie & Phillips, 2005; Tom & Eves, 1999).

The concept of ‘metaphor’ can be defined as the description and understanding of one thing in terms of something else (Inkson, 2006). The term ‘metaphor’ is used in this kind of research, although the aforementioned description would fit to all kinds of ‘tropes’ as well (McQuarrie & Mick, 1999; Toncar & Munch 2001). Hey and Agogino (2007) give a comprehensible technical description of how metaphors work. Metaphors consist of a source domain and a target domain. A metaphor like ‘African safari’ or specifically ‘This sauce is like an African safari’ links the target domain ‘sauce’ with the source domain ‘African safari’. By intuitively connecting what we know about Africa and safaris with what we know about sauces and creatively interpreting this comparison we may understand this sauce in a new and different way than before. Especially interesting are the implications of this new understanding, because they allow us to form assumptions about the target domain that were only possible in the source domain before. In the case of ‘This sauce is like an African safari’ the aforementioned implications enable evaluations

of the product beyond taste dimensions (e.g. sweet or hot) such as being exciting, or expressing an adventurous character. [1]

Although vastly applied by advertisements, only recently the importance of metaphors in human reasoning has been elaborated (Lakoff & Johnson, 1980, 1999). Metaphors are essential building blocks of cognition and enable us to creatively comprehend an ever changing world with what we have already experienced and give us new insights and ideas (Lakoff & Johnson, 1980, 1999; Inkson, 2006). An important implication of this notion is that completely non metaphorical reasoning is not likely. Consequently, even plain descriptions which are semantically not metaphorical are supposed to be unconsciously interpreted according to their sense-based association – which is a metaphorical process.

Thus, the context and individual knowledge decide or influence which features of a source domain are transferred or 'mapped' onto the understanding of the target source (Forceville, 1996; Inkson, 2006). The process by which meaning is created and the possible interpretations seem to depend on the concepts someone has about the target and the source domain of a metaphor and also the degree of abstractness of a given metaphors (Crilly, Good, Matraverse, & Clarkson, 2008; Inkson 2006).

This research wants to combine findings from brand personality research regarding different product types and metaphorical advertisement (Ang & Lim, 2006) while focusing on product perception and integrating insights from metaphorical reasoning. It focuses on product perception and specifically product personality, because the concept was found to be a crucial antecedent and part of the perceived brand personality (Brunel & Kumar, 2007). Furthermore, the understanding of metaphors as building blocks of our cognition adds the assumption, that

[1] In the actual case the soccer world championship was held in Africa, therefore products associated with that country were in great demand anyways.

findings regarding metaphorical versus non-metaphorical contexts of prior research should also be receivable using functional versus symbolic related metaphors. It is assumed that influencing factors known from brand personality research will elicit similar effects to the perception of a product's personality.

The personality of brands and persons

Further, metaphors are not only explicitly used for effectively communicating marketing claims, but commonly serve to describe and understand complex phenomena (e.g. consider the famous greenhouse effect). In consumer behaviour research a popular metaphor suggests the notion that 'brands are like persons' and investigated on factors important for the building of brand personality – the set of human characteristics associated with a brand (Aaker, 1997). Just like children, who tend to anthropomorphize everything around them – the lovely security blanket or the bad edge of the table (that hurts you without reason) – adult persons in a much more subtle and unconscious way also use labels and ideas originating from human personality characteristics when they evaluate and experience inanimate entities (Brunel & Kumar, 2007; Demirbilek & Sener, 2003; Jordan, 1997) like brands or products. For marketing research a brand personality scale was created on the basis of the Big Five personality dimensions, which were revised to fit for the evaluation of brands (Aaker, 1997). It was also used do determine the personality of products (Brunel & Kumar, 2007) although other researchers suggested more specialized scales (Govers, 2004). The 5 personality dimensions were called sophistication (openness), sincerity (conscientiousness), excitement (extraversion), competence (agreeableness), and ruggedness (neuroticism). The personality of brands and products are closely related and product personality seems to be a crucial antecedent and part of perceived brand personality (Brunel & Kumar, 2007), because it is more object specific. Several different

product variants of a same type and brand may elicit different product personality perceptions each (Govers & Schoormans, 2005). Changes in brand personality resulting from brand extension which means the introduction of new product lines for an existing brand (Sheinin, 2000), also indicate the close relation between both concepts.

Interestingly, the use of metaphorical advertisement seems to influence these brand personality perceptions. Brands of products which were introduced with a metaphorical context (advertisement), were seen as being more sophisticated and exciting, while brands of products with non-metaphoric context were seen as competent and sincere (Ang & Lim, 2006). This study assumes, that factors which have been found to influence brand personality, should also have an impact on product personality. Consequently, a similar relationship should be observed, when the product personality is assessed.

Hypothesis 1: *Products introduced with metaphorical context information will be perceived as more sophisticated and exciting, but as less sincere and competent than products in the control group without metaphorical context information.*

However, the underlying motivation of the aforementioned study was that metaphors are per se cryptic and indirect while non-metaphoric descriptions are plain and straight (Ang & Lim, 2006). So experimental metaphors were deliberately unspecific about how the metaphorical content should be evaluated, while non-metaphoric descriptions were always unambiguous.[2] So

[2] For example, the non-metaphoric description for a mineral water was “This mineral water is natural and nutritious”, while the metaphorical description claimed that “This mineral water is just like broccoli”. Of course, broccoli and water are both natural and nutritious, but the connection is quite far fetched – associations like being green and the distinctive taste of broccoli can be supposed to be much more prevalent when elaborating the metaphor than ascribing the meaning ‘nutritious and natural’.

the possible impact of metaphorical content might be underestimated so far. But what kind of content could lead to a change towards a more sincere and competent product personality?

Symbolic value and utilitarian value and product type

How consumers perceive and experience products is of interest for several fields such as marketing, consumer research and product design (Desmet & Hekkert, 2007). Because of modern production methods and increasing similarity in functions, quality, and price, the experiential aspects of consumer products gain continuously more importance (Bardill, Karamanoglu & Herd, 2005; Brunel & Kumar, 2007). And when two products are similar in functioning and price, it can be assumed that consumers will prefer the one that communicates more symbolic value to them (Creusen & Schoormans, 2005).

The term ‘symbolic value’ can be used as a concept to refer to perceived abstract product properties like aesthetic qualities (Hekkert, 2006; Leder, Belke, Oeberst & Augustin, 2004), its personality (Govers, 2004), the social identity and the self-expression possibilities the product expresses to the consumer (Creusen & Schoormans, 2005). For example, the sauce mentioned before is judged by its package, scent and taste, while the ‘African safari’ label suggests associations with a distinct personality and lifestyle and therefore identifies its consumer as possibly being a part of that style.

But ‘symbolic value’ may also represent a measured score on a product attitude scale to distinguish so called ‘utilitarian’ and ‘symbolic’ product types (Hassenzahl, Schöbel & Trautmann, 2008; Voss, Spangenberg & Grohe, 2003). The concept of product type is based on the discrimination of products into two different classes. Products which are perceived to be mainly consumed for their properties to fulfill an instrumental function are called ‘utilitarian products’ (e.g. pen). ‘Symbolic products’ on the other hand are primarily consumed for sensory

gratification and affective purposes or for fun and enjoyment (e.g. jewelry). Some researchers also refer to those as ‘hedonic products’ instead. They may also give consumers the possibility to express their personality or to generate emotional arousal (Ang & Lim, 2006).

But utilitarian products may also express personality characteristics of their consumers (e.g. being pragmatic), while symbolic products may also be consumed for a distinct purpose (e.g. looking good). Therefore products are mostly distinguished by comparing their utilitarian and symbolic values as measured by different product attitude scales (Hassenzahl et al., 2008; Voss et al., 2003). Consequently, utilitarian value is associated with functionality, pragmatism and being straight and simple, while symbolic value is associated with hedonism, affect and being abstract and complex.

Research showed recently that both product types are related to a distinct pattern of associated brand personality traits each (Ang & Lim, 2006; Lim & Ang, 2008). Brands of utilitarian products are perceived as sincere and competent, while symbolic products make a brand exciting and sophisticated.

Returning to the issue of which metaphorical content to choose to change the perceived product personality towards a specific direction, this research suggests a distinction between metaphors with functional and symbolic content. Considering the associated personality pattern of utilitarian versus symbolic product types, introducing products with clear functional or symbolic related metaphors might shift the perception of these products in a similar way. The importance of perceived fit between presented context information and the product must also be considered (van Rompay, Pruyn & Tieke, 2009).

Functional metaphors are defined as metaphors that distinctly communicate attributes of the product which are utilitarian (e.g. explain its practicality or usefulness) and should therefore

result in personality perceptions associated with this product type (e.g. sincere and competent). Symbolic metaphors on the other hand may communicate aspects of the product which are considered to categorize it as belonging to the symbolic category (e.g. relating the product to something affectionate, emotional, hedonic or simply beautiful) and result in a more sophisticated and exciting product personality perception.

Hypothesis 2: *Products introduced with symbolic metaphorical context information will be perceived as more sophisticated and exciting, but as less sincere and competent than products introduced with functional metaphorical context.*

Hypothesis 3: *Symbolic metaphors enhance perceived symbolic value of products and functional metaphors enhance perceived utilitarian value.*

Finally, it is expected that metaphors with symbolic and functional content have different effects on utilitarian and symbolic products. Research about hedonic and functional related advertisements found asymmetric compensating effects. Symbolic products did not profit from neither hedonic nor functional related advertisement, while utilitarian products significantly gained from hedonic advertisement (Lim & Ang, 2008). Studies of brand personality found that effects of metaphors were also more positive for utilitarian products only. While utilitarian products lost sincerity and competence, they gained sophistication and excitement when presented with metaphors. Symbolic products tended only to lose sincerity and competence (Ang & Lim, 2006).

Hypothesis 4: *Utilitarian products with symbolic metaphors are perceived as more sophisticated and exciting, but less sincere and competent than utilitarian products of the control group*

As stated before, it is assumed that functional metaphors will accentuate utilitarian aspects of products while symbolic metaphors accentuate symbolic aspects. But if a utilitarian product is presented with a functional metaphor, there might be a ceiling effect, because the functional aspect of the product was already identified. A symbolic metaphor on the other hand would add informational value. In line with prior research only utilitarian products are expected to benefit from symbolic metaphors while symbolic products are not expected to gain from functional metaphors.

Hypothesis 5: *Symbolic metaphors enhance perceived symbolic value of utilitarian products while functional metaphors have no effect on perceived utilitarian value of symbolic product.*

Method

Stimuli development

A total of 31 undergraduate students from the same subject pool as those in the main experiment participated in two short pretests. Both pretests were conducted in the library of the University of Twente on pen and paper questionnaires.

In the first pretest 15 students assessed a couple of possible products on a 6 item short-form of the 7-point semantic differential hedonic and utilitarian product attitude scale (Hed/Ut, all *Cronbachs Alphas* > *.83*; Voss et al., 2003) to categorize the product type into utilitarian or symbolic. This was achieved by analyzing the differences between the hedonic and utilitarian scores of each product.

A designer watch with a relatively high utilitarian score but low hedonic score was chosen as the utilitarian product (hedonic – utilitarian difference = -1.13, $t(14) = -3.26$, $p < .01$). A wall mounted cd player on the other hand received a high hedonic score but a low utilitarian score and was chosen as a symbolic product (hedonic-utilitarian difference= 0.87, $t(14) = 2.36$, $p < .03$).

In a second pretest another 16 students evaluated metaphorical comparisons for these products on three 7-point semantic differential scales (all *Cronbach's Alphas* >.74). Functional metaphors were described as addressing usefulness and being functional and logical. Symbolic metaphors were described as addressing feelings and being emotional and artistic instead. Accompanying pictures were explicitly chosen to resemble the respective product.

Table 1. Pretest Stimuli Study1

	Hedonic score		**Utilitarian score**		**Difference Hedonic-Utilitarian**			**Product Type**
	M	***SD***	***M***	***SD***	**Diff.**	***t***	***p****	
Watch	3.93	0.96	5.27	1.75	-1.13	- 3.26	**<.01**	Utilitarian
CD player	5.33	0.98	4.47	1.36	0.87	2.36	**.03**	Symbolic

	functional vs. emotional relatedness score		**T-Test versus neutrality value 4**			**Metaphor Type**
	M	***SD***	**Diff.**	***t***	***p****	
<u>Watch</u>						
Functional Metaphor	2.40	0.96	-1.60	-6.68	**<.01**	Functional
Symbolic Metaphor	5.77	0.96	1.77	7.35	**<.01**	Symbolic
<u>CD player</u>						
Functional Metaphor	2.69	1.33	-1.31	-3.95	**<.01**	Functional

Symbolic Metaphor	5.29	1.44	1.29	3.58	**<.01**	Symbolic

Notes. *Statistical significant values (p<.05) are boldfaced.

Because of the semantic differential scale, mean scores significantly greater than the neutrality value 4 indicated emotional relatedness, while scores significantly below 4 indicated functional relatedness. T-tests against the neutrality value 4 identified corresponding symbolic metaphors ('This designer watch is elegant and exclusive just like a butterfly[3]' $t(15)=7.35$, $p<.01$ / 'This cd player expresses that music can be just like a source of light', $t(15) = 3.58$, $p<.01$) as well as functional metaphors ('This designer watch is reliable and versatile just like a multi-tool', $t(15) = -6.68$, $p<.01$ / 'This cd player works simple and intuitive just like a stringswitch lamp', $t(15) = -3.95$, $p<.01$) for each product. All used scales can be found in Appendix A1.

Participants and experimental design

For the main study, a 2 x 3 between-subjects factorial design was chosen with product type (symbolic vs. utilitarian) and metaphorical context information (symbolic vs. functional vs. no context/control) as independent factors. Dependent variables were dimensions of product personality (sophistication, sincerity, excitement and competence) and product attitude (symbolic value, utilitarian value).

Overall 141 participants, 57 males and 84 females, ranging from 17 to 58 years (M=24.03, SD=5.37) took part in an online questionnaire. Most participants were students of the Twente University with German (69.5%) or Dutch (28.4%) nationality. As an incentive a lottery for an actual mp3-player was offered.

[3] 'Just like a butterfly' was also used as a metaphor for a watch in the Ang&Lim (2006) study.

Procedure

The study was realized in an online survey environment hosted by www.thesistools.nl. All constructs were measured on 7-point Likert-scales. First, participants were informed about the purpose and length of the study, the whereabouts of the experimenter and were asked for their informed consent to participate. Then a short instruction screen followed with some demographical questions.

Each participant had to evaluate a product presented with an accompanying metaphor. Participants in the control groups saw the product design without any metaphorical context information just with a minimal description of the product (e.g. “This is a watch design.”).

After presenting the stimulus picture, participants evaluated the product on dimensions of product personality and product attitude. In the experimental conditions the perceived product-metaphor-fit was also measured as a possible covariate. In the control condition this scale was replaced with three open questions about functional, emotional and objects related associations with the presented product. Finally participants had the opportunity to describe their own associations with the product and to write a comment. The product picture was visible in each screen of the questionnaire. After completion participants were thanked, debriefed and invited to participate in a lottery for an mp3-player.

Dependent Variables

Dimensions of product personality were assessed with 5 items per dimension using a scale adapted from Ang and Lim (2006) and Brunel and Kumar (2007). All items were framed in questions about the product. In the reliability analysis two items were removed because of low item-scale correlation; these were “cheerful” (r=.14, sincerity) and “pretentious” (r=.19,

sophistication). It is interesting to note that the study of Ang and Lim (2006) also found 'cheerful' a weak contributor to the sincerity scale.

The resulting scales yielded *Cronbach's Alphas* of α =.64 for *sophistication*, α =.72 for *sincerity*, α =.74 for *excitement* and α =.85 for *competence*. The mean scores were calculated for each scale and served as dependent variables.

Product attitude was measured with a 10-item scale as modified and validated by Voss et al. (2003). The reliability of this scale was α =.89, with the subscales for *symbolic value* and *utilitarian value* yielding α =.91 and α =.89 respectively.

Content relatedness of the metaphor was checked by 2 items, one for functional relatedness and one for emotional relatedness.

The perceived *product-metaphor-fit* was measured by 4 items that were already used in the pretest and yielded α =.93. All used stimuli and items can be found in APPENDIX A 2&3.

Results

Manipulation Check

Product Type. Utilitarian products were supposed to score high on utilitarian product values and symbolic products were supposed to score high on hedonic product values.

The overall effect for product type with $F(12, 98) = 14.96$, ($p<.01$) was found to be significant. In the control group, utilitarian products indeed scored higher on utilitarian values than symbolic products ($M = 5.04$, $SD = 1.09$ versus $M = 4.38$, $SD = 1.25$, $F(1, 42) = 5.77$, $p<.02$). Symbolic products on the other hand received higher scores in symbolic values than utilitarian products ($M = 4.16$, $SD = 1.35$ versus $M = 3.21$, $SD = 1.20$, $F(1, 41) = 19.06$, $p<.01$). Product type was successfully manipulated.

Metaphorical context information. Perceived product – metaphor – fit did not differ between functional and symbolic metaphors (symbolic: M = 3.91, SD = 1.06 versus functional: M = 4.39, SD = 1.27), $F(1,72) = 2.61$, *ns.* Participants indicated whether they perceived the presented metaphor as explaining a function or communicating something emotional related. Over all products, symbolic metaphors received higher emotional ratings (M = 4.57, SD = 1.62) than functional ratings (M = 3.60, SD = 1.81), $F(1,87) = 4.36$, $p < .04$. Separated for product type, this also holds for symbolic (M = 4.52, SD = 1.86 versus M = 3.67, SD = 2.03) and utilitarian products (M = 4.63, SD = 1.34 versus M = 3.53, SD = 1.58), $F(1,72) = 3.28$, $p < .07$. Functional metaphors were perceived as more functional (M = 5.55, SD = 1.50) than emotional (M = 4.95, SD = 1.64) for symbolic products only. For utilitarian products the functional metaphors were perceived as neither functional (M = 3.37, SD = 1.59) nor emotional (M = 3.69, SD = 1.66). Metaphor relatedness was overall successfully manipulated, excepting the functional metaphors for utilitarian products.

Hypotheses testing

A multiple analysis of variance (MANOVA) was conducted with product type (symbolic, utilitarian) and context metaphor (none, symbolic, functional) as independent factors. Dimensions of product personality (sophistication, sincerity, excitement, competence), dimensions of product attitude (symbolic value, utilitarian value) and manipulation checks (functional

Table 2. Analysis of statistical significance for multivariate effects

	MANOVA			
Source	***df***	**Error**	***F***	***p****
Product Type (A)	8	102	15.18	**<.01**
Metaphor (B)	16	204	24.81	**<.01**
A X B	16	204	4.01	**<.01**

Notes. *Statistical significant values (p<.05) are boldfaced.

relatedness, emotional relatedness) were used as dependent variables.

Significant effects were further scrutinized with corresponding follow-up ANOVAS.

Multivariate statistics corrected for multiple testing indicated the significance of all effects for product type, $F(8, 102) = 15.18$, $p < .01$, metaphor, $F(16, 204) = 24.81$, $p < .01$, and corresponding interaction effects, $F(16, 204) = 4.01$, $p < .01$ (see table 4).

Effects on product personality: sophistication. There was no main effect of product type on sophistication $F(1, 109) = 1.17$, *ns.*.

The metaphorical context was hypothesized to increase perceived product sophistication, but there was also no main effect of metaphor, $F(2, 109) = 0.10$, *ns.* Therefore the sophistication part of hypotheses 1 and 2 could not be supported.

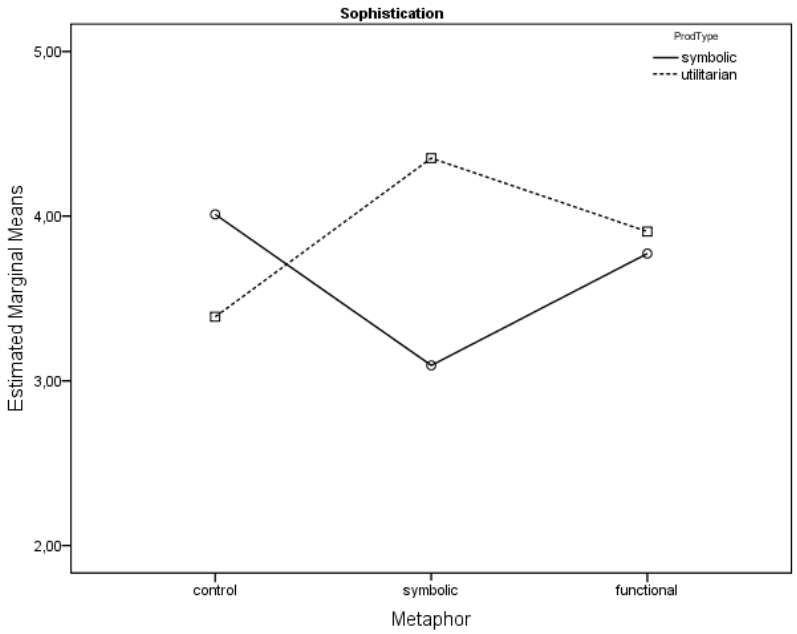

Figure 1. Perceived excitement of symbolic and utilitarian products between metaphors

An interaction effect of product type and metaphor on sophistication was well significant, $F(2, 109) = 5.62$, $p < .01$. For utilitarian products this result did not reach significance, $F(2, 62) = 2.35$, *ns.* (control: $M = 3.41$, $SD = 1.21$; symbolic: $M = 4.28$, $SD = 1.07$; functional: $M = 3.91$, $SD = 1.23$). Symbolic metaphorical context showed an expected increasing effect on sophistication when compared to the control group $F(1, 34) = 5.17$), $p < .03$, but not compared to functional metaphors, $F(1, 33) = 0.91$, *ns.* Within the symbolic metaphor condition the difference between

symbolic (M = 3.09, SD = 1.28) and utilitarian M = 4.28, SD = 1.07) products was also significant $F(1, 47) = 10.97$, $p < .01$. Functional metaphors did not significantly differ from the control group, $F(1, 31) = 1.35$, *ns.*, as expected. Therefore hypotheses 5 was weakly supported.

Symbolic products significantly differed in perceived sophistication when introduced with metaphorical context information, $F(2, 69) = 4.53$, $p < .01$ (control: M = 4.03, SD = 1.00; symbolic: M = 3.09, SD = 1.28; functional: M = 3.68, SD = 1.17). However, this effect was found to be significant only for the difference between symbolic metaphors and the control group $F(1, 44) = 7.63$, $p < .01$. The difference between symbolic and functional metaphors was not significant $F(=1, 43) = 2.54$, *ns.*, neither was the difference between functional metaphors and the control group, $F(1, 41) = 1.15$, *ns.*

Effects on product personality: sincerity. There was a main effect of product type on sincerity, $F(1, 109) = 14.58$, $p < .01$. Utilitarian products were significantly perceived as more sincere than symbolic products as hypothesized (utilitarian: M = 4.17, SD = 0.99; symbolic: M = 3.47, SD = 1.25). There was no main effect of metaphor on sincerity, $F(2, 109) = 2.06$, *ns.*, rejecting hypotheses 1 and 2. Yet, significant interaction effects of product type and metaphor could be found for sincerity, $F(2, 109) = 13.49$, $p < .01$. This was mainly caused by significantly higher sincerity scores of utilitarian products within the symbolic

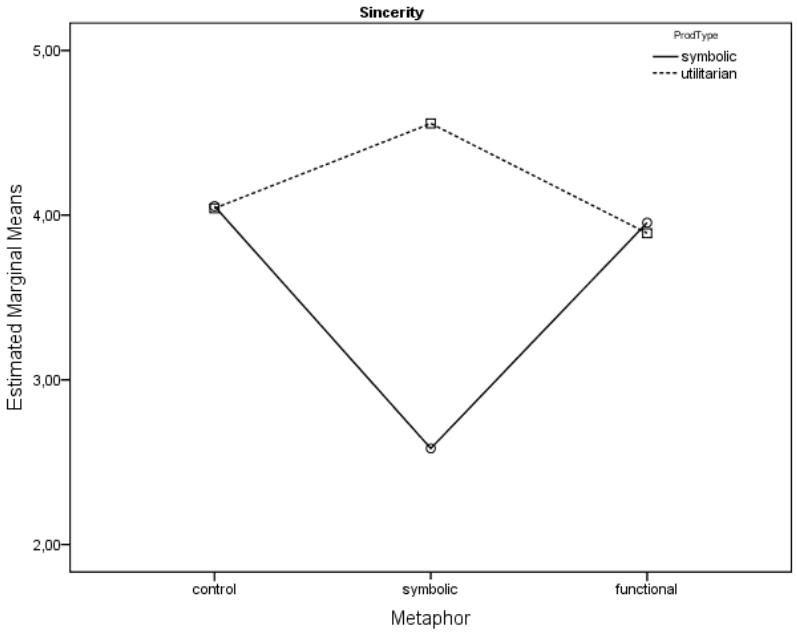

Figure 2. Perceived sincerity of symbolic and utilitarian products between metaphors

metaphor context $F(1, 46) = 53.22$, $p < .01$ (utilitarian: $M = 4.58$, $SD = 0.99$; symbolic: $M = 2.58$, $SD = 0.91$). Furthermore perceived sincerity of symbolic products significantly changed between metaphorical contexts $F(2, 68) = 12.98$, $p < .01$ (control: $M = 3.99$, $SD = 1.31$; symbolic: $M = 2.58$, $SD = 0.91$; functional: $M = 3.94$, $SD = 0.99$). The effect depended on a significantly lower sincerity score of products with symbolic metaphors, compared to the control group $F(1, 44) = 18.13$, $p < .01$, as well as compared to functional metaphors, $F(1, 43) = 22.92$, $p < .01$. There was no significant difference between functional metaphors and control group $F(1, 41) = 0.02$, *ns.*

Against expectations for utilitarian products scores of sincerity were significantly higher for symbolic ($M = 4.58$, $SD = 0.99$) than for functional ($M = 3.89$, $SD = 0.81$) metaphors $F(1, 33) = 4.96$, $p < .03$, rejecting hypotheses 4 for sincerity.

Effects on product personality: excitement. A main effect of product type on excitement was significant, $F(1, 41) = 21.26$, $p < .00$. As predicted, symbolic products were found more exciting than utilitarian products ($M = 4.99$, $SD = 0.75$ vs $M = 3.70$, $SD = .92$) in the control group and over all conditions, (symbolic: $M = 4.43$, $SD = 1.21$; utilitarian: $M = 3.94$, $SD = 1.03$, $F(1, 109) = 6.13$, $p < .02$.

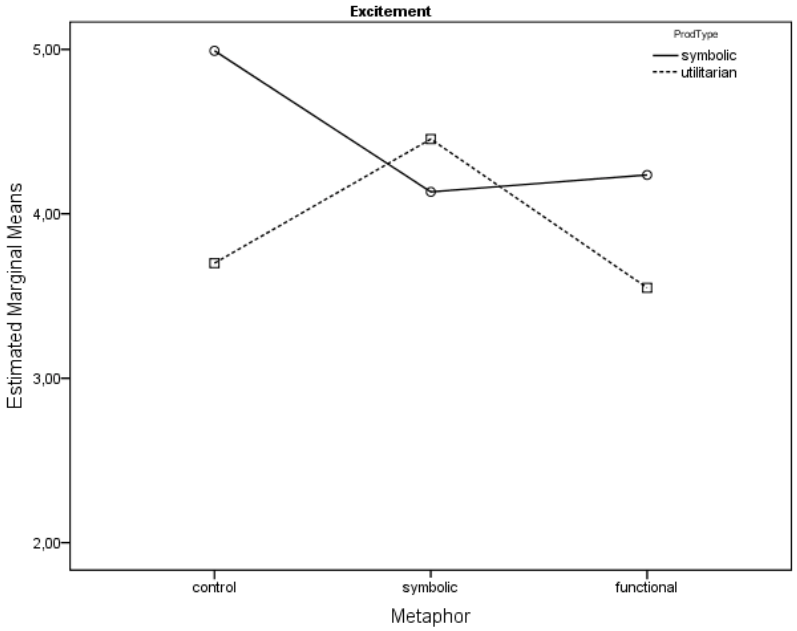

Figure 3. Perceived excitement of symbolic and utilitarian products between metaphors

There was no main effect of metaphor on excitement, $F(2, 109) = 2.35$, *ns.*, rejecting hypotheses 1 and 2 for excitement.

An interaction effect of metaphor and product type

was well significant, $F(2, 109) = 5.79$, $p < .01$. Symbolic products were overall perceived less exciting in both metaphorical contexts (control: $M = 4.99$, $SD = 0.75$; symbolic: $M = 4.13$, $SD = 1.37$; functional: $M = 4.17$, $SD = 1.24$), $F(2, 69) = 4.36$, $p < .02$. Significant were the differences between control group and both metaphors, with $F(1, 44) = 6.76$, $p < .01$ for the difference between control group and symbolic metaphors and with $F(1, 41) = 6.93$, $p < .01$ for the difference between control group and functional metaphors. Symbolic products with functional metaphors did not differ in perceived excitement to symbolic products with symbolic metaphors, $F(1, 43) = 0.01$, *ns.*

Perceived excitement of utilitarian products also significantly differed between metaphorical context conditions, $F(2, 57) = 3.45$, $p < .04$ (control: $M = 3.70$, $SD = 0.92$; symbolic: $M = 4.48$, $SD = 1.00$; functional: $M = 3.55$, $SD = 0.97$). Symbolic metaphors significantly raised excitement compared to the control group $F(1, 34) = 6.07$, $p < .02$ as well as compared to functional metaphors $F(1, 33) = 7.82$, $p < .01$, confirming hypothesis 4.

Effects on product personality: competence. There was a significant main effect of product type on perceived competence, $F(1, 109) = 39.35$, $p < .01$. Utilitarian products were found more competent than symbolic products (symbolic: $M = 3.67$, $SD = 1.26$; utilitarian: $M = 4.89$, $SD = 0.82$). A

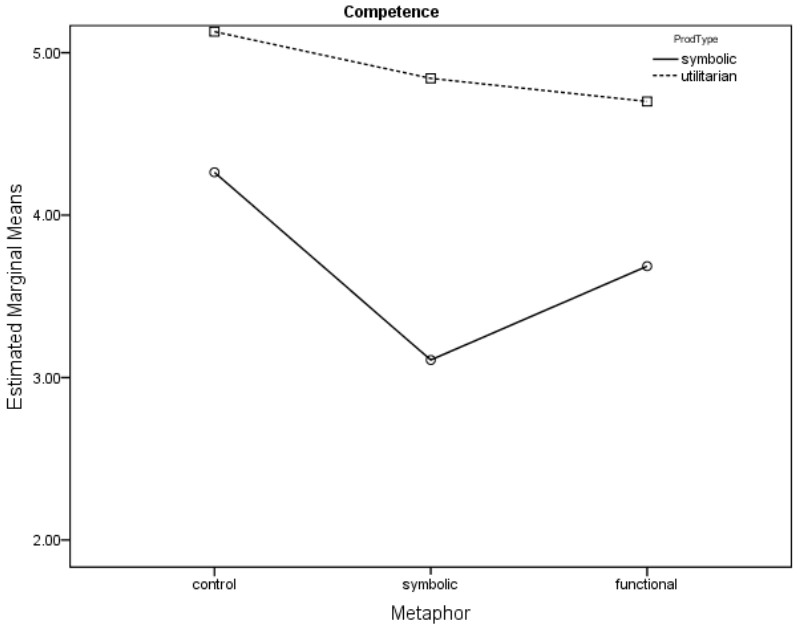

Figure 4. Perceived competence of symbolic and utilitarian products between metaphors

main effect of metaphor on competence was also significant $F(2,109) = 5.05$, $p < .01$. In the control condition products were seen as more competent ($M = 4.64$, $SD = 1.14$) than with symbolic ($M = 3.93$, $SD = 1.42$), $F(1, 75) = 8.62$, $p < .01$, or with functional metaphors ($M = 4.10$, $SD = 1.06$), $F(1, 71) = 5.31$, $p < .02$. Hypothesis 1 was supported.

Products with functional metaphors were not significantly more competent than products with symbolic metaphors, $F(1, 72) = 0.64$, *ns.*, so hypothesis 2 was rejected for competence.

Interaction effects of metaphor and product type on competence did not reach significance, $F(2,109) = 1.89$, *ns.*

Effects on product attitude: symbolic value. The main effect of product type was significant for symbolic value $F(1, 109) = 7.17$, $p < .01$, showing that symbolic products had more perceived symbolic value than utilitarian products (symbolic: $M = 4.27$, $SD = 1.26$; utilitarian: $M = 3.74$, $SD = 1.14$).

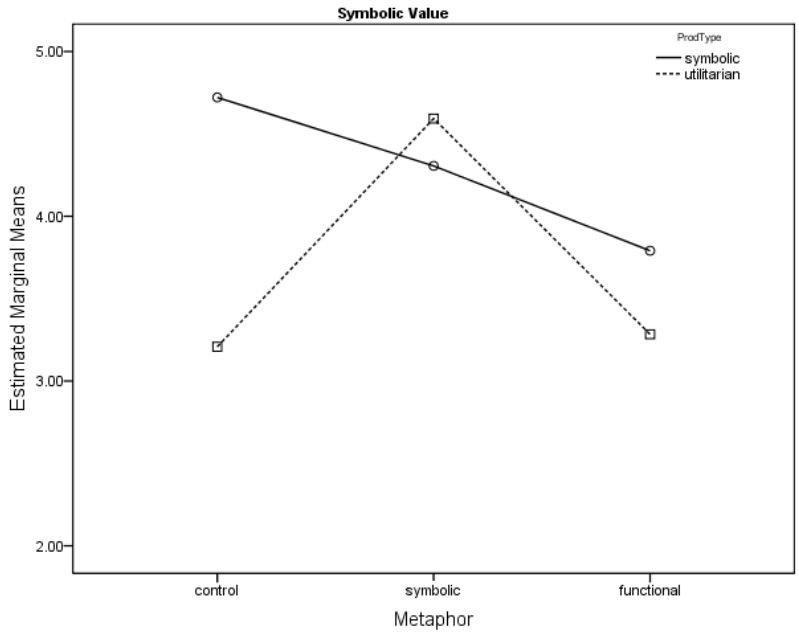

Figure 5. Symbolic value of symbolic and utilitarian products between metaphors

There was also a main effect of metaphorical context condition on perceived symbolic value $F(2, 109) = 5.97$, $p < .01$. Products presented with symbolic metaphors ($M = 4.41$, $SD = 1.16$) had a higher perceived symbolic value than products presented with functional metaphors ($M = 3.56$, $SD = 1.12$), $F(1, 72) = 11.30$, $p < .01$, supporting hypothesis 3. Compared

to the control group (M = 4.06, SD = 1.29) symbolic metaphors scored only marginally higher, $F(1, 75) = 3.29$, $p < .07$, while functional products scored only marginally lower, $F(1, 71) = 2.90$, $p < .09$.

Furthermore, product type and metaphor showed a significant interaction effect, $F(2, 109) = 6.86$, $p < .01$. For symbolic products both metaphors diminished symbolic value $F(2, 68) = 1.93$, *ns*. Compared to the control condition (M = 4.72, SD = 1.10), symbolic value marginally decreased with symbolic metaphors (M = 4.31, SD = 1.30), $F(1, 44) = 1.36$, *ns*. while with functional metaphors is significantly decreased (M = 3.79, SD = 1.15), $F(1, 41) = 7.38$, p <.01. For utilitarian products the symbolic metaphors enhanced symbolic value $F(2, 60) = 11.53$, $p < .01$. The symbolic value of the product with the symbolic metaphor (M = 4.59, SD = 0.87) was higher compared to the control group (M = 3.21, SD = 0.98), $F(1, 34) = 20.15$, $p < .01$, as well as compared to products with functional metaphors (M = 3.28, SD = 1.02), $F(1, 33) = 16.86$, $p < .01$, supporting hypothesis 5 for symbolic value.

Effects on product attitude: utilitarian value. A significant main effect of product type was found for utilitarian value, $F(1, 109) = 26.69$, $p < .01$, showing that utilitarian products over all conditions gained more utilitarian value than symbolic products (symbolic: M = 3.92, SD = 1.21; utilitarian: M = 4.94, SD = 0.98).

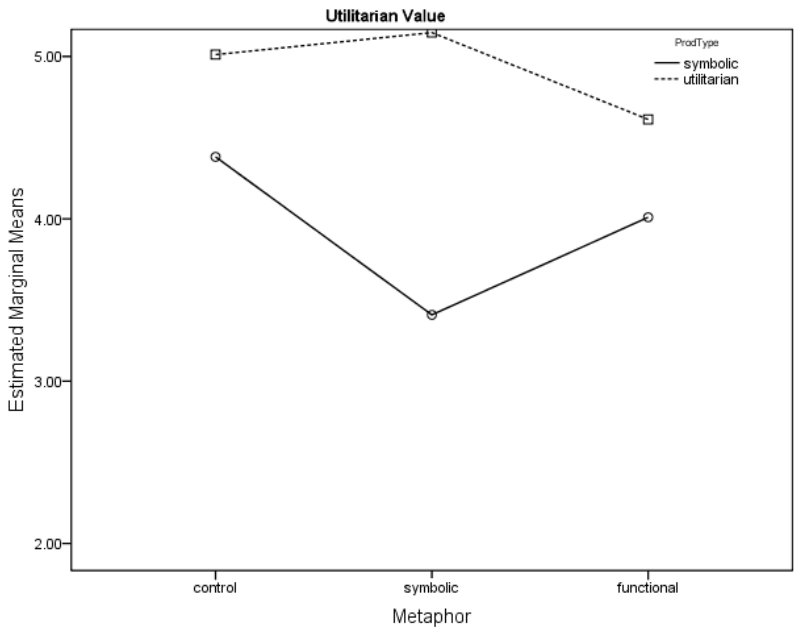

Figure 6. Utilitarian value of symbolic and utilitarian products between metaphors

There was no main effect of metaphorical context condition on perceived utilitarian value $F(2, 109) = 2.11$, *ns.* leaving hypothesis 3 unsupported for symbolic value.

There was a significant interaction effect of product type and metaphor, $F(2, 109) = 3.30$, $p < .04$. For symbolic products utilitarian value decreased under symbolic and functional metaphors, $F(2, 70) = 3.11$, $p < .05$. Compared to the control group ($M = 4.38$, $SD = 1.25$) symbolic products with symbolic metaphors ($M = 3.41$, $SD = 1.28$) significantly lost utilitarian value $F(1, 44) = 6.82$, $p < .01$. There was no gain of utilitarian value for symbolic products with functional metaphors ($M = 4.01$ $SD = 0.87$), compared to the control group, $F(1, 41) = 1.28$, *ns.*, confirming hypothesis 5 for utilitarian value.

For utilitarian products further no significant change was found $F(2, 60) = 1.79$, *ns.* However, products with symbolic metaphors ($M = 5.15$, $SD = 0.71$) tended to gain higher scores of utilitarian value than products with functional metaphors ($M = 4.61$, $SD = 1.07$), $F(1, 33) = 3.12$, $p < .09$, or than products of the control group ($M = 5.01$, $SD = 1.12$), $F(1, 34) = 0.19$, *ns.*

Summary and discussion of study 1

The results mainly confirm that the perceived personality of a product follows patterns known from the perceived personality of brands. For one, perceived product personality traits were related to the perceived product type (being utilitarian or symbolic) of a product. Utilitarian products were seen as more competent and sincere while symbolic products were more exciting. However, sophistication was not perceived to be significantly different between both product types.

The study also investigates whether the perception of a product's personality would differ when it is presented with different metaphors. This study suggests that functional metaphors make a product more utilitarian, enhancing its perceived competence and sincerity, while

symbolic metaphors make it more symbolic, resulting in increased sophistication and excitement. The results show weak evidence for these exploratory claims. A main effect of metaphor was significant for the personality dimension of perceived competence and marginally for excitement. Overall, products introduced with symbolic metaphors were perceived as less competent than the same products without any context or with functional metaphors. Products with functional metaphors were perceived as less exciting, while products with symbolic metaphors did not differ over all from the control group. The content of the metaphors was therefore important for the effects.

The metaphors further showed different effects for utilitarian and symbolic products. Symbolic metaphors did enhance sophistication, excitement and sincerity in utilitarian products, while having no or a decreasing effect on these personality perceptions of symbolic products. Functional metaphors had no strong effect on symbolic products, but significantly decreased the excitement of utilitarian products. These asymmetric effects are in line with prior findings of Lim and Ang (2008), who also found only utilitarian products to profit from symbolic advertisement. While the found results were not strictly in line with all expectations, they still suggest that functional and symbolic metaphors indeed have an own impact on product perception.

A critical review on the derived insights identifies some validity shortcomings. To start with, functional relatedness of metaphors was not completely successfully manipulated. Although selected with a pretest, chosen functional metaphorical context information was found not to be satisfactory manipulated for utilitarian products in the main study. While symbolic metaphors were reliably recognized as such, functional metaphors were not. Pretests were done in pen and paper versions using semantic differential scales, while the main experiment was conducted in an

online environment. Perhaps due to this manipulation difficulty the postulated hypotheses for metaphors could not be strongly confirmed in this experiment.

The difference between the products was also maybe too strong. While the utilitarian watch was a familiar, quite common design, the wall mounted cd player was rather strange and uncommon. Differences in perceived originality or product aesthetics may also have influenced the subtle effects of presented metaphors. Also, the artwork of the stimuli was quite simple, because they were only supposed to communicate the metaphor. This could also be a factor for the lower ratings on excitement in comparison to the control condition, which depicted only the product.

Finally, individual differences between subjects have not been assessed, which may have a major impact on how context information is processed and evaluated.

Study 2

In a following second experiment these factors are addressed to gain further insight on the effect of symbolic versus functional metaphors on product perception. It is still supposed that the perception of the entire product is shapeable by metaphorical context information. But instead of comparing two products differing on their product type, this time only one product will be presented in different context information conditions. Symbolic metaphors were furthermore not only supposed to be emotional but specifically to account for self expression, symbolic meaning and personal experience. To control for a part of individual differences of participants the concept of self-regulatory focus was taken into consideration, because the literature suggests that subtle relationships between this concept and product perception exist.

Self-Regulatory Focus

Regulatory focus theory states that two different motivational systems regulate the way an individual evaluates information and accomplishes goals (Higgins et al., 2001). These motivational systems are distinguished into a promotion focus and a prevention focus. Individuals in a promotion focus concentrate on goals, ideals and possible gains and try to approach towards positive outcomes. Individuals in a prevention focus, concentrate on obligations, responsibilities and possible threads and try to avoid negative outcomes. The preferred focus of an individual, with regard to an individual's past experience of success to avoid negative or approach positive outcomes is called chronic regulatory focus. The second study introduces regulatory focus to examine the influence of an individual's psychological status on product perception. Specifically it is assumed that the proposed effect of the metaphorical context on product perception is moderated by the chronic regulatory focus of participants.

Several studies investigated the fit of effects of regulatory focus with the attitude towards messages and products (Hassenzahl et al., 2008; Aaker & Lee, 2001; Wang and Lee, 2006) but scarcely on product personality perception.

Studies indicated that utilitarian products are more liked when framed with a prevention focus and symbolic products are favored in promotion focused frames (Hassenzahl et al., 2008). Therefore individuals with a prevention focus are more oriented towards an effective way to avoid failures and getting a task done. Instead, promotion-focused individuals concentrate on potential gains, stimulation and personal advancement, what makes the novelty character or hedonic quality of a product more important to them.

Also, experienced regulatory focus fit with a message or brand leads to higher persuasiveness and liking of that message or brand (Aaker & Lee, 2001) and increases the perceived value of objects (Wang & Lee, 2006). Message features that appeal to the different foci (promotion versus prevention) are for example win versus loss frames, evoked independency versus interdependency (Aaker& Lee, 2001), abstract versus concrete (Keller, Lee & Sternthal 2004), context related versus item-specific (Zhu & Meyers-Levy, 2007) complexity versus simplicity, hedonic attributions versus pragmantic attributions, and proposed be-goals versus proposed do-goals (Hassenzahl et al., 2008). Finally, when confronted with mixed information, people tend to express a confirmation bias based on their regulatory focus and judge information which fits into their focus as more important (Wang and Lee, 2006).

Product Personality, Metaphorical Context and Regulatory Focus

An enhancing effect of regulatory focus fit on the persuasiveness and liking of corresponding metaphors is expected. In detail, individuals with a chronic promotion(prevention) focus should be more attracted and persuaded by a symbolic(functional) metaphors and perceive the product as more exciting (sincere), sophisticated(competent) and symbolic (utilitarian) than those with a prevention (promotion) focus. The effects of metaphors on product perception are therefore supposed to be moderated by the chronic regulatory focus of each subject.

Hypothesis 6: *For subjects with a relatively strong promotion focus, symbolic metaphors should result in increasing scores for sophistication, excitement, and symbolic values. Functional metaphors for those subjects should result in decreasing scores for sincerity, competence and utilitarian values.*

Hypothesis 7: *For subjects with a relatively strong prevention focus, symbolic metaphors should result in decreasing scores for sophistication, excitement, and symbolic values. Functional metaphors for those subjects should result in increasing scores for sincerity, competence and utilitarian values.*

Finally, product attitude as measured by appeal, consuming intention and pricing should be higher in the fitting conditions.

Hypothesis 8: *Product Appeal and Consuming intention receive increasing ratings when a product is introduced to promotion focused individuals with a symbolic metaphor and to prevention focused individuals with a functional metaphor.*

Hypothesis 9: *Expected pricing of the product is higher when it is introduced to promotion focused individuals with a symbolic metaphor and to prevention focused individuals with a functional metaphor.*

Method

Stimuli development.

To discriminate functional versus symbolic related metaphors, 20 participants took part in an online questionnaire similar to that which was used in the main study. Thirteen of them were female, 16 were German and 4 Dutch. The mean age was 24.45 years (*SD* = 2.31) and all participants filled in questionnaires worded in their native language. The pretest was designed as a survey with 4 scales, assessing whether a displayed metaphor is understandable, fitting for the

product and whether it relates to distinct functional or experience oriented benefits of the product.

Participants evaluated 3 functional and 3 symbolic intended metaphors consisting of a headline with an accompanying picture, displaying the product and a pictorial cue for the metaphor. As a control condition the product was presented with a headline featuring redundant non-metaphorical information. Pictures were counterbalanced over all participants to control for effects of serial order. Finally participants were thanked.

To find significant functional versus symbolic metaphors, a paired sample t-test was conducted on the difference score between the symbolic and functional relatedness score of each metaphor.

For the significantly functional and symbolic metaphors, relative fit and understanding scores were taken into further consideration.

From the paired sample t-test, a functional metaphor ‘the best protection against bacteria’s’ featuring the picture of a shield (functional score: $M = 4.75$, $SD = 2.17$ vs. symbolic score: $M = 2.80$; $SD = 1.82$, diff.: $t(19) = 3.35$, $p < .01$) and a symbolic metaphor ‘unleash the zen master within you’ featuring the picture of a budda statue (functional score: $M = 3.20$, $SD = 1.61$ vs. symbolic score: $M = 5.00$, $SD = 1.52$, $t(19) = -4.28$, $p < .01$) were chosen as stimuli for the main experiment.

Table 3 Stimuli Development Study 2

Descriptives

	Functional Metaphor		**Control**		**Symbolic Metaphor**		
Scale	***M***	***SD***	***M***	***SD***	***M***	***SD***	***N***
Functional score	4.75	2.17	2.80	1.82	3.20	1.61	20
Symbolic score	2.80	1.82	2.15	1.57	5.00	1.52	20
Fit	3.65	1.95	3.90	2.13	4.00	1.78	20
Understanding	4.85	2.08	4.00	2.08	4.55	1.73	20

Paired Sample T-test Statistics

	Functional Metaphor		**Control**		**Symbolic Metaphor**	
	t(19)	***p****	*t*(19)	***p****	*t*(19)	***p****
T-test func-symb	3.35	**<0.01**	1.66	0.11	-4.28	**<0.01**

Notes. *Significant results (p<.01) are boldfaced.

Experimental design and participants

The second study used a two factor between-subjects design with metaphorical context information (symbolic vs. functional vs. no context/control) as independent factor. The chronic regulatory focus of participants (promotion vs. prevention) was measured and used as a second factor via a median split. Dependent variables were dimensions of product personality (sophistication, sincerity, excitement and competence), pricing and 3 scales for product attitude (I: appeal, utilitarian value, symbolic value/ II: utilitarian value, hedonic value / III: price, consume intention, utilitarian value, symbolic value).

A total of 169 subjects (113 women, 56 men) with a mean age of 26.84 years (*SD* = 8.98) participated in the online experiment. Most participants had German (105, 62.1%) or Dutch (56, 33.1%) nationality.

Procedure

The study was realized like the first study in a web environment hosted by www.thesistools.nl. Participants were told that an advertising campaign for an Aloe Vera drink was being developed and that the researchers were interested in learning how the target groups may perceive the product within the campaign. The chronic regulatory focus of participants was assessed first using the regulatory focus questionnaire. Afterwards they were presented an advertisement of the Aloe Vera drink and were instructed to evaluate the product on dimensions of product personality and product attitude. Manipulation checks with regard to the metaphor relatedness were assessed at the end of the study. Finally, participants were thanked and debriefed. All used scales and the actual used web-versions can be found in the Appendix.

Dependent variables

Regulatory Focus. To assess the chronic regulatory focus of participants the 11 items 7-point Likert Regulatory Focus Questionnaire (RFQ, Higgins et al., 2001) was used in a Dutch and German translation as validated in the pretest. A median split was used on the difference between participant's promotion and prevention scores to classify them into relatively more promotion or relatively more prevention oriented (Higgins et al. 2001; Lockwood & Jordan 2002).

Product Personality. Dimensions of product personality (Sophistication, Sincerity, Excitement, Competence) were assessed like in the first study using items adapted from Ang and Lim (2006) and Brunel and Kumar (2007). All questions were framed in product terms and all presented adjective-items were presented in Dutch or German depending on the participant. The scales had 5 items each. Sophistication (Charmant, Knap, Geavanceerd, Gevoelig, Upper-class) , Sincerity (Vrolijk**,** Kinderachtig, Serieus, Eerlijk, Bescheiden), Excitement (Gedurfd,

Fantasievol, Pittig, Uitdagend, Interessant), and Competence (Betrouwbaar, Efficiënt, Vertrouwd, Veraantwoord, Successvol).

Product Attitude. Attitude towards the product was measured in three different ways to account for the diversity of functional versus symbolic product properties.

First, by using a 23 item 7-point semantic differential scale adapted from Hassenzahl et al. (2008) which differentiates appeal, pragmatic and hedonic value. The pragmatic score was counted as the utilitarian value and the hedonic score was counted as the symbolic value within this scale.

Second, by using 8 additional items from the previously used hedonic / utilitarian scale as validated by Voss et al. (2003). In this scale, the utilitarian score was used as the utilitarian value and the hedonic score again represented the symbolic value.

Finally 12 new items, tailored for the product at hand, were used to assess each functional (5) and symbolic (5) properties of the product, pricing (1) and consuming intention (1). The functional score represented utilitarian value, while the symbolic score was used as the symbolic value. All items were presented in Dutch or German.

Results

Measures and Manipulation Checks

Regulatory Focus. To investigate the influence of regulatory focus, participants were segregated into relatively more promotion or prevention focused by using a median split technique (Higgins et al., 2001). First the chronic RFQ Promotion and RFQ Prevention scores of participants were assessed by the regulatory focus questionnaire (RFQ). Scores of the promotion scale (α = .63, 6 items) and the prevention scale (α = .73, 5 items) had no significant intercorrelation (r = .09, p < .23). The median of the difference scores (Promotion score –

Prevention score) was 0.60 (M = 0.51, SD = .92, ranging from -2.50 to 3.20), so all individuals with a score equal or below 0.60 were classified as prevention focused (N = 84) while individuals with a higher score were labeled promotion focused (N = 85).

Product Personality. Dimensions of product personality were assessed with 5 items each. Reliablity statistics showed a very low item-to-scale correlation for the 'pretentious' item of the sophistication scale (r = .08) and the 'childish' item of the sincerity scale (r = .18), so these items were removed for the calculations of the dependent variable means. Cronbach's Alpha's for the final scales were α = .71 for Sophistication (4 items), α = .68 for sincerity (4 items), α = .75 for excitement (5 items) and α = .89 for competence (5 items).

Product Symbolism, Utilitarism and Attitude. Attitude I: The measure adapted from Hassenzahl et al. (2008) with 3 subscales yielded α = .94 for appeal (8 items), α = .88 for symbolic value ('hedonic', 7 items) and α = .76 for utilitarian product value ('pragmatism', 8 items).

Attitude II: The hedonic / utilitarian scale (Hed/Ut) as validated by Voss et al. (2003) yielded α = .86 for the utilitarian value (5 items) and α = .90 for the symbolic value ('hedonic', 5 items) subscale.

Attitude III: The 5 questions regarding functional aspects of the product yielded α = .83 as scale for utilitarian value and the 5 questions regarding symbolic value gained α = .69 as a scale. Additionally the intention to consume the product and the estimated product price were assessed.

Manipulation Checks. The relative difference of symbolic vs functional relatedness of the metaphors was investigated by a paired sample t-test (functional - symbolic) per condition. The control condition was rather judged as transferring functional (M = 2.24, SD = 1.55) nor symbolic (M = 2.21, SD = 1.42) value to the product $t(57) = 0.16$, *ns*. The symbolic metaphor

was seen as more symbolic (M = 4.23, SD = 1.90) than functional (M = 3.70, SD = 1.91), t(56) = -2.78, $p < .01$. For the functional metaphor, functional relatedness was perceived higher (M = 4.31, SD = 1.81) than symbolic relatedness (M = 3.48, SD = 1.87), $t(53) = 3.21$, $p < .01$. The content relatedness of the metaphors was therefore successfully manipulated.

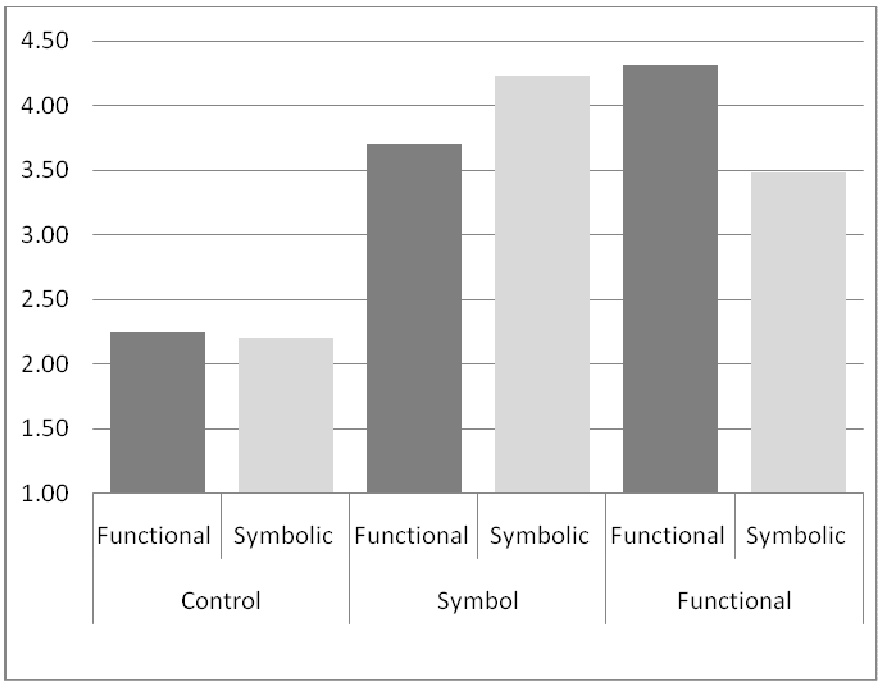

Figure 7. Manipulation Check: functional versus symbolic metaphor relatedness per conditions

Analysis of variance and hypotheses testing

To control for errors of alpha inflation a MANOVA was conducted with context condition and regulatory focus as independent factors and all dependent variables as dependent factors (product personality: sophistication, sincerity, excitement, competence/product attitude I: appeal, utilitarian value, symbolic value / attitude II: utilitarian value, symbolic value / attitude III: price, consuming intention, utilitarian value, symbolic value. The results of the multivariate analysis indicated that effects of metaphorical context conditions for all following ANOVAs were trustworthy despite multiple testing, $F(26, 302) = 1.64$, $p < .03$, while regulatory focus

$F(13, 151) = 0.83$, $p < .63$, *ns.*, and interaction effects between context and focus $F(26, 302) = 1.33$, $p < .14$, *ns.* are might accusable to chance.

Effects of metaphorical context and regulatory focus on product perception

Effects on product personality: sophistication. There was no main effect of metaphor for sophistication, $F(2, 163) = 1.11$, $p < .33$. Therefore hypotheses 3 and 4 could not be confirmed. There was also no main effect of regulatory focus $F(1, 163) = 0.25$, *ns.*, nor an interaction effect of focus and context $F(2, 163) = 1.01$, *ns.* For sophistication, hypotheses 6 and 7 were not supported.

Effects on product personality: sincerity. The main effect of metaphor on perceived sincerity of the product was marginally significant $F(2, 163) = 2.46$, $p < .09$. The product was seen as slightly more sincere in the control condition ($M = 3.43$, $SD = 1.14$) than with the symbolic metaphor ($M = 3.19$, $SD = 1.19$), $F(1, 111) = 1.28$, *ns.*, but as significantly more sincere than with the functional metaphor ($M = 2.94$, $SD = 1.15$), $F(1, 108) = 5.09$, $p < .03$. The difference in perceived sincerity between symbolic and functional metaphor was not significant $F(1, 107) = 1.17$, *ns.* Therefore hypotheses 2 and 3 were not supported for sincerity.

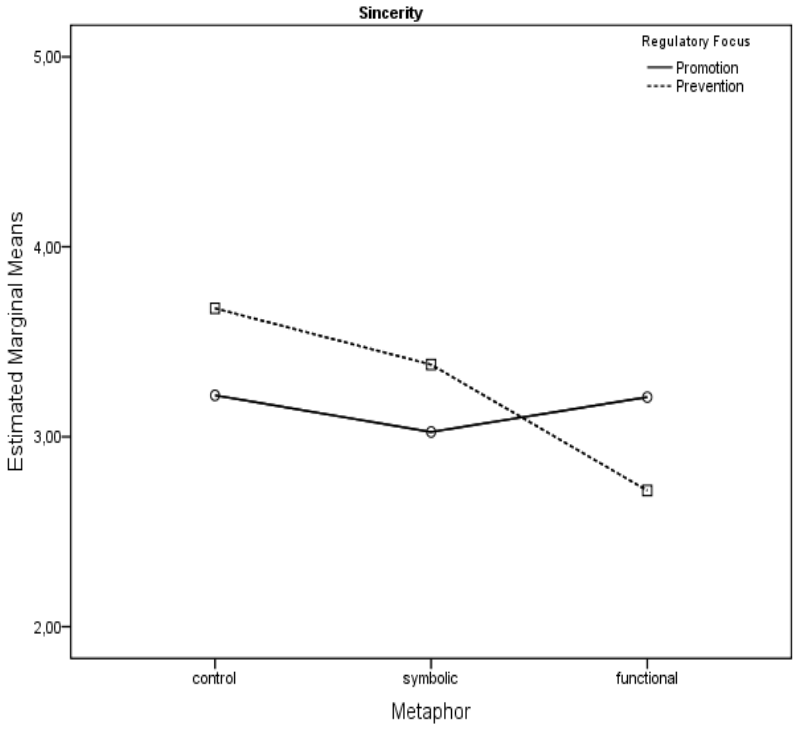

Figure 8. Perceived sincerity of the product by promotion and prevention focused subjects between metaphors.

No main effect of regulatory focus $F(1, 163) = 0.36$, *ns.*, was found.

An interaction effect of focus and metaphor $F(2, 163) = 2.81$, $p < .06$, was marginally significant. With the symbolic metaphor, promotion focused people evaluated the product as less sincere than prevention focused people ($M = 3.38$, $SD = 1.17$ vs. $M = 3.03$, $SD = 1.20$), $F(1, 55) = 1.27$, *ns.* With the functional metaphor, promotion focused people perceived more product sincerity than prevention focused people ($M = 3.21$, $SD = 1.21$ vs. $M = 2.72$, $SD = 1.07$), $F(1, 52) = 2.50$, *ns.* While subjects with a promotion focus did not significantly differ in their perception of sincerity between the symbolic and the functional metaphor ($M = 3.03$, $SD = 1.20$ vs $M = 3.21$, $SD = 1.21$), $F(1, 52) = 0.31$, *ns.*, subjects with a prevention focus evaluated the product significantly less sincere with the functional metaphor ($M = 3.38$, $SD = 1.17$ vs. $M = 2.72$, $SD = 1.07$), $F(1, 55) = 5.00$, $p < .03$. For sincerity hypotheses 6 and 7 were therefore rejected.

Effects on product personality: Excitement. There was no main effect of metaphor on perceived excitement of the product, $F(2, 163) = 0.83$, *ns.* Hypothesis 2 and 3 were not supported.

There was no main effect of regulatory focus on excitement $F(1, 163) = 0.36$, *ns.* and no interaction effect was found $F(2, 163) = 0.08$, *ns.* For excitement hypotheses 6 and 7 were therefore rejected for excitement.

Effects on product personality: Competence. No main effect of metaphor on perceived competence of the product was found $F(2, 163) = 0.71$, *ns.* Hypotheses 2 and 3 were not supported for competence.

There was also no main effect of regulatory focus on the perception of competence $F(1, 63) = 0.05$, *ns.*

The interaction effect of regulatory focus and metaphorical context on competence did not reach significance $F(2, 163) = 1.40$, *ns.* For competence hypotheses 6 and 7 did not hold.

Effects on product attitude I: Appeal. There was no main effect of metaphor on perceived appeal of the product, $F(2, 163) = 0.53$, *ns.*

Regulatory focus of the subjects also showed no main effect on perceived product appeal $F(1, 163) = 0.28$, *ns.*

Interaction effects of metaphorical context and regulatory focus did not reach statistical significance $F(2, 163) = 1.91$, *ns.*

A marginal effect could be traced back to the point that only for prevention focused subjects the product in the symbolic context was found more appealing ($M = 4.17$, $SD = 1.40$) than in the functional context ($M = 3.51$, $SD = 1.11$), $F(1, 55) = 3.93$, *ns.* and more appealing than for promotion focused subjects ($M = 3.52$, $SD = 1.35$), $F(1, 55) = 3.18$, $p < .08$.

This is the opposite of what has been expected so hypothesis 8 was rejected.

Effects on product attitude I: Symbolic value. There was no main effect of metaphor on the symbolic value of the product as measured by the first attitude scale, $F(2, 163) = 1.77$, *ns.*

There was also no main effect of the regulatory focus on the symbolic value perception $F(1, 163) = .002$, *ns.* Interaction between metaphor and regulatory focus did not occur $F(2, 163) = 0.16$, *ns.* Hypotheses 7 and 8 could not be confirmed for symbolic value (I).

Effects on product attitude I: Utilitarian value. There was a marginal main effect of metaphor on perceived utilitarian value of the product, $F(2, 163) = 2.38$, $p < .10$. Subjects in the control condition found the product slightly more utilitarian ($M = 4.24$, $SD = 0.97$) than subjects who received the symbolic metaphor ($M = 3.84$, $SD = 0.96$), $F(1, 111) = 4.54$, $p < .04$. The control condition did not differ from the functional metaphor condition ($M = 4.02$, $SD = 0.88$),

$F(1, 108) = 1.44$, *ns.* The product with the functional metaphor was not found more utilitarian than in the symbolic context, $F(1, 107) = 0.93$, *ns.*

There was no main effect of regulatory focus on perceived utilitarian value $F(1, 163) = 0.56$, *ns.* An interaction effect of metaphor and regulatory focus did not reach significance $F(2, 163) = 0.97$, *ns.* Hypothesis 6 and 7 were not supported for utilitarian value (I).

As measured by the first attitude scale, the metaphor a product was presented with had only a marginal impact on symbolic value and did not change the perceived utilitarian value of the product.

Effects on product attitude II: Symbolic value. There was no main effect of metaphor on symbolic value of the product as measured by the Hed/Ut scale, $F(2, 163) = 0.99$, *ns.*

The regulatory focus of subjects had no main effect on the symbolic value $F(1, 163) = 0.06$, *ns.* either.

An interaction effect of metaphor and regulatory focus was marginally significant $F(2, 163) = 2.45$, $p < .09$. While for promotion focused subjects symbolic value did not differ between metaphors, $F(2, 82) = 0.15$, ns, for prevention focused subjects it did, $F(2, 81) = 3.80$, $p < .03$. In fact, prevention focused subjects found the product with the symbolic metaphor more symbolic ($M = 3.97$, $SD = 1.29$) than with the functional metaphor ($M = 3.19$, $SD = 1.15$), $F(1, 55) = 5.75$, $p < .02$ or in the control group ($M = 3.21$, $SD = 1.14$), $F(1, 52) = 5.28$, $p < .03$. Additionally, only with the symbolic metaphor prevention focused subjects scored marginally higher than promotion focused subjects ($M = 3.97$, $SD = 1.29$ vs. $M = 3.29$, $SD = 1.29$), $F(1, 55) = 3.90$, $p < .05$. Therefore, prevention focused subjects seemed to be more aware of the symbolic value (II) of the product than promotion focused subjects, when they received a symbolic metaphor, so hypotheses 6 and 7 were rejected.

Effects on product attitude II: Utilitarian value. There was no main effect of metaphor on utilitarian value of the product as measured by the Hed/Ut scale, $F(2, 163) = 0.44$, *ns.*

There was no main effect of regulatory focus on perceived utilitarian value, $F(1, 163) = 2.03$, *ns.*

There was no interaction effect between regulatory focus and metaphor $F(2, 163) = 0.90$, *ns.* Hypotheses 6 and 7 were not supported for utilitarian value (II).

Effects on product attitude III: Consuming intention. Participants were asked whether they would intend to proof the product. While there was no main effect on consuming intention with regard to metaphor, $F(2, 163) = 0.87$, *ns.*, and regulatory focus, $F(2, 163) = 0.10$, *ns.*, both factors showed a tendency to interaction, $F(2, 163) = 2.83$, $p < .06$. With the symbolic metaphor promotion focused subjects intended to proof the product less likely than prevention focused subjects ($M = 2.50$, $SD = 1.78$ vs. $M = 3.04$, $SD = 1.95$), $F(1, 108) = 3.18$, $p < .08$. With the functional metaphor however, promotion focused subjects liked it more than prevention focused subjects ($M = 3.46$, $SD = 1.96$ vs. $M = 2.43$, $SD = 1.85$), $F(1, 52) = 3.89$, $p < .05$. Hypothesis 8 was rejected for consuming intention.

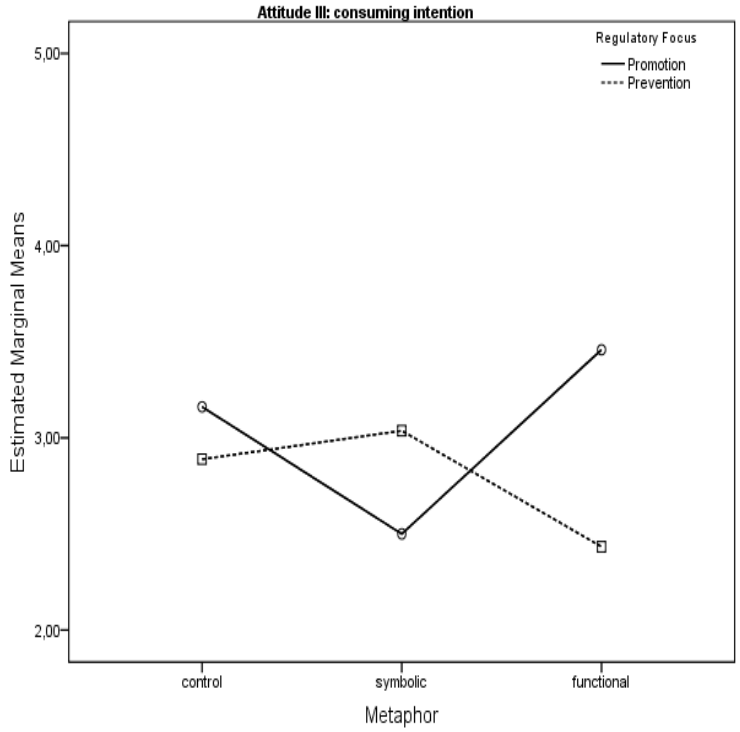

Figure 9. Consuming intention of promotion and prevention focused subjects between metaphors.

Effects on product attitude III: Symbolic value. Finally the symbolic value of the product was assessed by 5 specific questions. Metaphor had a main effect on this perceived symbolic value $F(2, 163) = 5.64$, $p < .01$. As expected, subjects who saw the product with the symbolic metaphor judged it to be more symbolic ($M = 4.09$, $SD = 1.12$) than those that saw it with the functional metaphor ($M = 3.31$, $SD = 1.23$), $F(1, 107) = 11.16$, $p < .01$ or those in the control condition ($M = 3.58$, $SD = 1.24$), $F(1, 111) = 5.25$, $p < .02$. Functional metaphor and control condition did not differ, $F(1, 108) = 1.05$, *ns.* Hypothesis 3 was confirmed for symbolic value (III).

The regulatory focus of subjects had no main effect on the perception of the product's symbolic value, $F(1, 163) = 0.76$, *ns.*, nor was an interaction of regulatory focus and metaphor significant $F(2, 163) = 0.54$, *ns.* Hypotheses 6 and 7 were not confirmed for symbolic value (III).

Effects on product attitude III: Utilitarian value. There was no main effect of metaphor on the perceived utilitarian value regarding to the specific product related questions, $F(2, 163) = 0.29$, *ns.* Worth mentioning however is that participants across all conditions disagreed that the function of the product is measurable ($M = 2.47$, $SD = 1.50$), while strongly agreeing that it is consumed for the effect of its ingredients ($M = 4.26$, $SD = 1.76$).

There was no main effect of regulatory focus, $F(1, 163) = 0.91$, *ns.*, and no interaction effects of focus and metaphor, $F(2, 63) = 0.13$, *ns.* Hypotheses 6 and 7 were rejected for utilitarian value (III).

Effects on product attitude III: Price. The final measure of product attitude was the estimated price for the product. Participants were asked to name a price they would consider adequate for the product. Product pricing ranged from 0.20 Eurocent to 6.00 Euro per bottle with a mean of 1.35 Euro (*SD* = 0.81) The most quoted (mode) price was 1.50 Euro and was named 18 times followed by 1.00 Euro and 2.00 Euro (both 17 times).

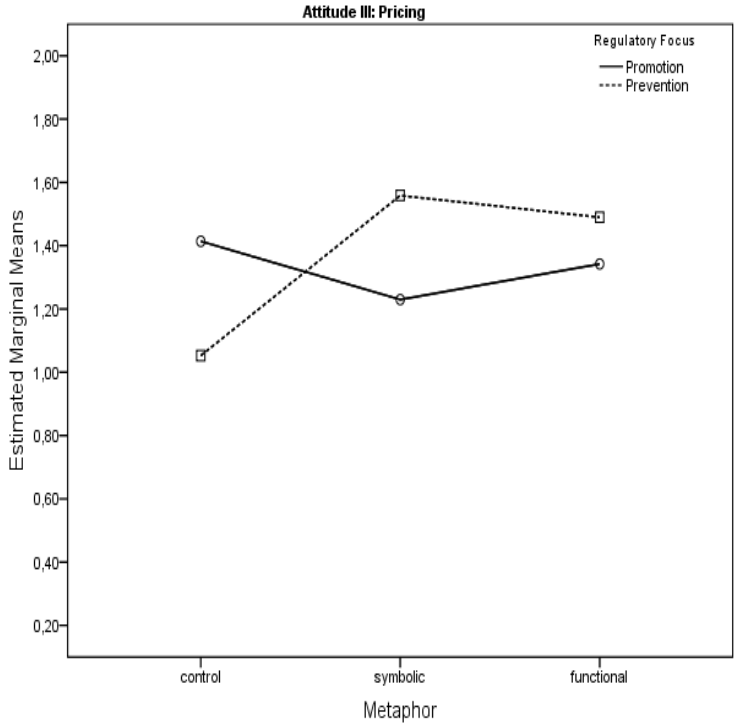

Figure 10. Estimated price of the product by promotion and prevention focused subjects between metaphors.

There was no main effect of metaphor on estimated price $F(2, 163) = 0.87$, *ns.*, and no main effect of regulatory focus, $F(1, 163) = 0.10$, *ns.* An interaction effect of metaphor and regulatory focus was significant for the estimated price, $F(2, 163) = 2.83$, $p < .06$. While promotion focused subjects in the control condition chose higher prices for the product than prevention focused individuals ($M = 1.41$, $SD = 0.96$ vs. $M = 1.05$, $SD = 0.50$), $F(1, 56) = 3.06$, $p < .09$, this pattern changed with symbolic metaphors ($M = 1.23$, $SD = 0.61$ vs. $M = 1.56$, $SD = 0.77$), $F(1, 55) = 3.21$, $p < .08$ and functional metaphors ($M = 1.34$, $SD = 1.08$ vs. $M = 1.49$, $SD = 0.79$), $F(1, 52) = 0.34$, *ns.* Furthermore, while individuals with a promotion focus gave quite equal prices over all conditions, $F(2, 82) = 0.33$, $p < .72$, *ns.*, individuals with a prevention focus chose significantly lower prices in the control condition compared to those who saw symbolic metaphors ($M = 1.05$, $SD = 0.50$ vs. $M = 1.56$, $SD = 0.77$), $F(1, 52) = 8.16$, $p < .01$, of

functional metaphors (vs. M = 1.49, SD = 0.79), $F(1, 55) = 6.09$, $p < .02$. There was no difference between the two metaphors though, $F(1, 55) = 0.11$, *ns.* Hypothesis 9 was only slightly confirmed for prevention focused individuals. While promotion focused individuals found the product more valuable in the control condition, prevention focused subjects attributed greater value in both metaphorical context conditions.

Product type perception across the context conditions. To test whether the product was perceived relatively more symbolic or utilitarian, in each condition a paired sample t-test was conducted, comparing the utilitarian vs. symbolic value of each attitude scale. In the control condition, attitude I (Pragmatic/Hedonic) would categorize the product to be significantly utilitarian ($t(57) = 3.66$, $p < .01$), for its pragmatic value was higher than its hedonic value, while attitude II (Hed/Ut scale) ($t(57) = 0.36$, $p < .72$, *ns.*) and III (own questions) ($t(57) = -0.50$, $p < .96$, *ns.*) found the product not to be more functional or symbolic.

In the symbolic condition, all attitude scales indicated higher symbolic than utilitarian value for the product. The hedonic value assessed by the attitude I scale however was not significantly higher than the utilitarian value ($t(56) = -0.59$, $p < .56$, *ns.* The attitude II measure (Hed/Ut scale) would only label the product symbolic in one sided testing ($t(56) = -1.75$, $p < .09$(.045 one-sided)), while attitude III would categorize it to be significantly symbolic ($t(56) = -3.56$, $p < .01$).

In the functional condition attitude I would categorize it to be utilitarian ($t(53) = 2.37$, $p < .02$), while attitude II and III scales indicated no product type for the stimulus product ($t(53) = -0.66$, $p < .51$) and III ($t(53) = -0.37$, $p < .72$).

Summary and discussion of study 2

In contrast to the first study, no significant changes in any of the personality perceptions occurred across metaphorical context conditions. However this also means that no decreasing effects of metaphor per se occurred, what might be accredited to the content relatedness.

In the second study the regulatory focus of participants was measured and taken as an explanatory variable and only one product was assessed with different metaphors. In contrast to what was expected from the literature, subjects with a relatively high prevention focus, who are keen to prevent losses and tend to prefer utilitarian products and concrete practical features were more positive about the product when it was presented with a symbolic metaphor. They found the product more sincere and symbolic than their promotion focused fellows and judged it more appealing and expensive and were more likely to intend to consume the product. Promotion focused individuals on the other hand who are generally known to be more attracted towards symbolic products and personal development oddly gave much higher intentions to consume the product when it was presented with the functional metaphor. On all other measures promotion focused subjects made no differences between the context conditions. A possible interpretation is that for prevention focused subjects symbolic metaphors added a value to the product that they did not see before. On the other hand for promotion focused subjects the benefit of using the product was obviously most clear with the functional metaphor.

General discussion and conclusion

The results of both studies suggest that perceived product personality traits of a product are only marginally influenced by symbolic and functional metaphors and seem to be mainly shaped by the physical appearance of the product. The regulatory focus of participants seemed also not

to influence product perception. Apart from that, personality perceptions of products tend to react in a similar way as known from brands.

The first study found that utilitarian products were more sophisticated, exciting and sincere, when introduced with a symbolic metaphor, while symbolic products with a symbolic metaphor were only less exciting. Functional metaphors had no significant effects on the perception of symbolic products, but significantly decreased the excitement of utilitarian products.

The second study additionally assessed the regulatory focus of participants but found no major influence of this psychological state on the perception of a product presented with different metaphors. Furthermore the featured product was neither symbolic nor utilitarian and functional versus symbolic metaphors had no significant influence on perceived product personality or symbolic and utilitarian value. Only for one measure of product attitude, the symbolic metaphor changed the perception of the product from neutral to symbolic. Looking at the specific questions, subjects in the symbolic metaphor condition especially agreed that the product is consumed to enjoy its taste and atmosphere, that it can show who you are and that it evokes emotions. They did not differ with subjects in the other conditions about the statement that the product design gives the product a distinct personality or that the product is trendy.

Overall it seems that the visual physical form of products mainly shapes the perception of product attitude and personality (Brunel & Kumar, 2007). Specifically, the perceived product type is a strong indicator of personality attribution (Desmet, Nicolás, & Schoormans, 2008). The utilitarian product was perceived consistently as more sincere and competent as the symbolic products. Additional context information in form of metaphorical advertisement or individual differences like the regulatory focus of participants seemed to have only minor effects on product perception, at least as realized and measured in the presented studies. From this point of view

product design succeeds in the enterprise of ‘applied object-based phrenology’, assuming that distinct groups of people indeed draw stable implicit connections between physical form and personality traits. Consequently, and in line with prior research, a distinct pattern of perceived product personality seems to be grounded in the visual product design. So if the design does not already communicate the desired attributes of a product, it will be difficult to alter the first impression by placing the product in different contexts or marketing claims. For product marketing these findings give a clear direction. It is more important to carefully design a product beforehand, than trying to shape its perception in advertisement campaigns afterwards.

Still, product personality perceptions tended to react in a way as was expected from research of brand personality. It is especially interesting that utilitarian products seem to profit more from additional symbolic information than symbolic products profit from additional functional information (Ang & Lim 2006; Lim & Ang 2008). For a product which is already identified as being symbolic and made for sensory gratification and affective purposes, it seems to be unimportant to know more about its functional properties. On the other hand, a functional product becomes even more interesting when its possible symbolic properties are pointed out. This study was also inspired by the notion, that metaphorical thinking is essential to our cognition and that therefore findings regarding metaphorical versus non-metaphorical contexts (in form of advertisements) (Ang & Lim, 2006) should also be receivable using only metaphors. As stated in the beginning, in advertisement and product marketing the metaphoric labeling of products replaces more and more the plain summing-up of benefits or ingredients. Research found mainly support for the idea that metaphors, because of being abstract and slightly deviant, would only be able to accentuate symbolic, transformational properties of brands and products. However, serious and functional information are also communicated by metaphors, like the

famous ‘greenhouse effect’ or the idea of ‘hair repair’ - shampoos, to stay at consumer products. This study tried to account for this kind of metaphors while still relating its stimuli to that of comparable studies (e.g. Ang & Lim, 2006). This study suggested the distinction between functionally versus symbolic related metaphors, having the personality associations with utilitarian versus symbolic products in mind. Maybe this distinction is not appropriate to receive the wanted results, but it may also be that the used stimuli did not work properly, despite the pre-testing. Pairing a product only with a metaphorical headline and a reference picture might not be sufficient to communicate the desired kind of serious functional metaphors. Participants try to make sense of the given stimuli with regard to the questions they have to fill in and the possibility remains that they just perceive it as somehow odd. Another problem with involving graphical stimuli may be that participants tend to judge their quality in place of their meaning. So careful and professional crafting of stimuli is important to avoid negative aesthetic based influences.

The use of different scales and items and the missing standards are also yet a problem in scientific research about product perception. This study used items from brand personality studies and applied them to product personality. While some published research considers these measures as valid (Brunel & Kumar, 2007) others don’t (Govers, 2004). The same holds true for the estimation or product type. While official scales exist (Hassenzahl, et al., 2008; Voss et al., 2003) often short forms and own items are used in research (Ang & Lim 2006; Lim & Ang 2008). The current study used two product attitude scales from other papers and a scale with own items, but always used custom translations to provide German and Dutch subjects with questionnaires in their native language. This may also be a thread to validity and generalization

of the findings. Finally, all experimental measures were conducted in a web environment, leaving unclear how, where and when participants participated in the study.

Overall, this study tried to combine findings from a larger area of prior research and tested the proposed relationships using diverse but simple stimuli. Future studies should use even more carefully selected product – metaphor pairs, with high fit and understanding of symbolic and functional metaphors as necessary presumptions. Using different stimuli is also advised. A short animation, like seen in many advertisement spots or at least an explaining text, or a small story may be the more appropriate way to build up the understanding of serious functional metaphors. Also assessing the underlying metaphorical object- and affect - associations people have with possible stimuli products and metaphor sources beforehand would allow to further specify the processes of meaning making and attribution. More studies are consequently needed to deepen the knowledge about how and what people attribute to product designs and how their metaphoric understanding can be used to effectively communicate desired product perception.

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Appendix

A1 Pretest scales Study 1

Items of the pretest regarding product type.

1 Not fun	☉ ☐ ☐ ☐ ☐ ☐ ☐	Fun
2 Dull	☉ ☐ ☐ ☐ ☐ ☐ ☐	Exciting
3 Unenjoyable	☉ ☐ ☐ ☐ ☐ ☐ ☐	Enjoyable
4 Ineffective	☐ ☐ ☐ ☐ ☐ ☐ ☐	Effective
5 Not functional	☐ ☐ ☐ ☐ ☐ ☐ ☐	Functional
6 Impractical	☐ ☐ ☐ ☐ ☐ ☐ ☐	Practical
7 Boring	☐ ☐ ☐ ☐ ☐ ☐ ☐	Interesting
8 Unattractive	☐ ☐ ☐ ☐ ☐ ☐ ☐	Attractive

Note. 1,2,3=hedonic(symbolic); 4,5,6=functional(utilitarian); 7,8=appeal

Items of the pretest regarding content relatedness of metaphor.

1 Adresses usefulness	☐ ☐ ☐ ☐ ☐ ☐ ☐	Adresses feeling
2 Emotional	☐ ☐ ☐ ☐ ☐ ☐ ☐	Functional
3 Logical	☐ ☐ ☐ ☐ ☐ ☐ ☐	Artistic
4 Not fitting	☐ ☐ ☐ ☐ ☐ ☐ ☐	Fitting
5 Far fetched	☐ ☐ ☐ ☐ ☐ ☐ ☐	Obvious
6 Not recognizable in product	☐ ☐ ☐ ☐ ☐ ☐ ☐	Recognizable in product
7 Boring	☐ ☐ ☐ ☐ ☐ ☐ ☐	Interesting
8 Believable	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unrealistic

Note. 1,2,3=emotional(symbolic) vs. functional(utilitarian); 4,5,6=perceived fit; 7,8=appeal

A 2 Stimuli Study 1

(Control)

This is a cd player design

This is a watch design

(Emotional/Symbolic)

Please focus your attention on the product design on the left side

This cd player expresses that music can be just like a source of light

Please focus your attention on the product design on the left side

This designer watch is elegant and exclusive just like a butterfly

(Functional/Utilitarian)

Please focus your attention on the product design on the left side

This cd player works simple and intuitive just like a stringswitch lamp

Please focus your attention on the product design on the left side

This designer watch is reliable and versatile just like a multi-tool

A 3 Scales Study 1

4. Do you have any personal prior experiences with this particular product?

- ☐ Yes
- ☐ No

bcfagab0 | 21

5. Imagine you had to **describe this product** in terms of personality. Just rely on the first associations that come to mind.

	Disagree						Agree		
This is a charming product.	☐	☐	☐	☐	☐	☐	☐	bcfagbb0	31
This product can be described as cheerful.	☐	☐	☐	☐	☐	☐	☐	bcfafgj0	31
This product is quite daring.	☐	☐	☐	☐	☐	☐	☐	bcfagcf0	31
This product is reliable.	☐	☐	☐	☐	☐	☐	☐	bcfagdg0	31
This product is domestic.	☐	☐	☐	☐	☐	☐	☐	bcfagdf0	31
This is an efficient product.	☐	☐	☐	☐	☐	☐	☐	bcfaffi0	31
This product can be called genuine.	☐	☐	☐	☐	☐	☐	☐	bcfagda0	31
It is a glamorous product.	☐	☐	☐	☐	☐	☐	☐	bcfagdb0	31

	This product is honest.	☐	☐	☐	☐	☐	☐	☐	bcfagdc0	31
	This product can be characterised as being imaginative.	☐	☐	☐	☐	☐	☐	☐	bcfagdd0	31

6.

Imagine you had to **describe this product** in terms of personality. Just rely on the first associations that come to mind.

	Disagree						Agree		
This product is quite pretentious.	☐	☐	☐	☐	☐	☐	☐	bcfagad0	31
One can rely on this product.	☐	☐	☐	☐	☐	☐	☐	bcfagcg0	31
This product can be described as being responsible.	☐	☐	☐	☐	☐	☐	☐	bcfagaf0	31
This product might be romantic.	☐	☐	☐	☐	☐	☐	☐	bcfagag0	31
This product can be called spirited.	☐	☐	☐	☐	☐	☐	☐	bcfagah0	31
This is an up-to-date product.	☐	☐	☐	☐	☐	☐	☐	bcfaffj0	31
One can characterize this product as successful.	☐	☐	☐	☐	☐	☐	☐	bcfaffa0	31
It is an interesting product.	☐	☐	☐	☐	☐	☐	☐	bcfaffb0	31
This product can be called down-to-earth.	☐	☐	☐	☐	☐	☐	☐	bcfaffd0	31
This product can be described as being upper-class.	☐	☐	☐	☐	☐	☐	☐		

7.

Now imagine actually **using this product**. Indicate to what extend you agree with the following statements. Just rely on the first decision that comes to mind.

	Disagree						Agree		
Using this product would be fun.	☐	☐	☐	☐	☐	☐	☐	bcfaggj0	31
It would be easy to use this product.	☐	☐	☐	☐	☐	☐	☐	bcfaffg0	31
Using this product would be exciting.	☐	☐	☐	☐	☐	☐	☐	bcfagge0	31
Using this product would be delightful.	☐	☐	☐	☐	☐	☐	☐	bcfaffh0	31
This is a useful product.	☐	☐	☐	☐	☐	☐	☐	bcfageb0	31
This would be a thrilling product to use.	☐	☐	☐	☐	☐	☐	☐	bcfaggf0	31
This product makes a functional impression.	☐	☐	☐	☐	☐	☐	☐	bcfaggg0	31
This is a necessary product.	☐	☐	☐	☐	☐	☐	☐	bcfaged0	31
It would be enjoyable to use this product.	☐	☐	☐	☐	☐	☐	☐	bcfagga0	31
This product is practical.	☐	☐	☐	☐	☐	☐	☐	bcfaggb0	31
I like this product.	☐	☐	☐	☐	☐	☐	☐	bcfafei0	31
I would consider buying this product.	☐	☐	☐	☐	☐	☐	☐		

8.

Finally, focus on the **visual appearance** of this product design in relation to what you know about other products of this product class.
Indicate to what extend you agree with the following statements.

	Disagree						Agree		
This product design is beautiful.	☐	☐	☐	☐	☐	☐	☐	bcfagdi0	31
This product design is unique.	☐	☐	☐	☐	☐	☐	☐	bcfafga0	31
This is an appealing product design.	☐	☐	☐	☐	☐	☐	☐	bcfafgd0	31
This product design is original.	☐	☐	☐	☐	☐	☐	☐	bcfafge0	31
This product design is attractive.	☐	☐	☐	☐	☐	☐	☐	bcfafgf0	31
This is a boring product design.	☐	☐	☐	☐	☐	☐	☐	bcfafgg0	31
This product design is extraordinary.	☐	☐	☐	☐	☐	☐	☐	bcfagee0	31
This is a pleasant product design.	☐	☐	☐	☐	☐	☐	☐	bcfagef0	31
This product design is special.	☐	☐	☐	☐	☐	☐	☐	bcfafgh0	31
This product design is good-looking.	☐	☐	☐	☐	☐	☐	☐	bcfaggc0	31

9.	What associations regarding the function of this product come to your mind when you look at this particular design? Try to name at least one.
	bcfafib0 12

10.	What feelings does this product design trigger in you? Just write down the first associations that come to mind. Try to name at least one.
	bcfagdh0 12

11.	Imagine you had to come up with metaphorical comparisons for this product of the kind "This product is just like...". Write down the first associations that are triggered by this product design in your mind. Try to name at least one.
	This product is just like bcfagjf0 12

12.	Do you have any further comments about the questions or the product, which could be interesting to the experimenter? (you may leave this field blank)
	bcfagai0 12

A 4 Result Tables Study 1

Table 1. Pretest Stimuli Study1

	Hedonic score		**Utilitarian score**		**Difference Hedonic-Utilitarian**			**Product Type**
	M	**SD**	**M**	**SD**	**Diff.**	**t**	**p***	
Watch	3.93	0.96	5.27	1.75	-1.13	- 3.26	**<.01**	Utilitarian
CD player	5.33	0.98	4.47	1.36	0.87	2.36	**.03**	Symbolic

	functional vs. emotional relatedness score		**T-Test versus neutrality value 4**			**Metaphor Type**
	M	**SD**	**Diff.**	**t**	**p***	
Watch						
Functional Metaphor	2.40	0.96	-1.60	-6.68	**<.01**	Functional
Symbolic Metaphor	5.77	0.96	1.77	7.35	**<.01**	Symbolic
CD player						
Functional Metaphor	2.69	1.33	-1.31	-3.95	**<.01**	Functional
Symbolic Metaphor	5.29	1.44	1.29	3.58	**<.01**	Symbolic

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 2. Analysis of statistical significance for multivariate effects

	MANOVA			
Source	**df**	**Error**	**F**	**p***
Product Type (A)	8	102	15.18	**<.01**
Metaphor (B)	16	204	24.81	**<.01**
A X B	16	204	4.01	**<.01**

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 2.1. Results for Product Perceptions by Metaphor and Product Type

	Descriptive Statistics					
	Product Total					
Metaphor	**Control (N=39)**		**Symbolic (N=40)**		**Functional (N=36)**	
Factor	**M**	**SD**	**M**	**SD**	**M**	**SD**
Symbolic Value	4.06	1.29	4.41	1.16	3.56	1.12
Utilitarian Value	4.66	1.22	4.23	1.39	4.21	0.98
Emotional rel.	/	/	4.57	1.62	4.39	1.75
Functional rel.	/	/	3.60	1.81	4.58	1.87
Sophistication	3.76	1.13	3.67	1.34	3.81	1.19
Sincerity	3.99	1.19	3.49	1.40	3.85	0.80
Excitement	4.43	1.04	4.29	1.25	3.88	1.17
Competence	4.64	1.14	3.93	1.42	4.10	1.06

	Symbolic product			
	Control (N=22)	**Symbolic (N=21)**	**Functional (N=20)**	**Metaphor Total**

							(N=63)	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Symbolic Value	4.72	1.10	4.31	1.30	3.79	1.15	4.27	1.26
Utilitarian Value	4.38	1.25	3.41	1.28	4.01	0.87	3.90	1.19
Emotional rel.	\	\	4.52	1.86	4.95	1.64	3.08	2.67
Functional rel.	\	\	3.67	2.03	5.55	1.50	2.98	2.73
Sophistication	4.03	1.00	3.09	1.28	3.68	1.17	3.63	1.23
Sincerity	3.99	1.31	2.58	0.91	3.94	0.99	3.47	1.25
Excitement	4.99	0.75	4.13	1.37	4.17	1.24	4.43	1.21
Competence	4.26	1.10	3.10	1.35	3.62	1.14	3.67	1.26

	Utilitarian Product							
	Control (N=17)		**Symbolic (N=19)**		**Functional (N=16)**		**Metaphor Total (N=52)**	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Symbolic Value	3.21	0.98	4.59	0.87	3.28	1.02	3.74	1.14
Utilitarian Value	5.01	1.12	5.15	0.71	4.61	1.07	4.94	0.98
Emotional rel.	\	\	4.63	1.34	3.69	1.66	2.83	2.36
Functional rel.	\	\	3.53	1.58	3.37	1.59	2.33	2.07
Sophistication	3.41	1.21	4.28	1.07	3.91	1.23	3.88	1.20
Sincerity	3.99	1.05	4.58	0.99	3.89	0.81	4.17	0.99
Excitement	3.70	0.92	4.48	1.00	3.55	0.97	3.94	1.03
Competence	5.13	1.01	4.84	0.81	4.70	0.54	4.89	0.82

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 2.2 Results of univariate ANOVAs for Product Type and Metaphor

	Main Effects								
	Product Type (A)			Metaphor (B)			Interaction (A x B)		
	df	F	p*	df	F	p*	df	F	p*
Product Personality									
Sophistication	1	1.17	.28	2	0.10	.90	2	5.62	**.01**
Sincerity	1	14.58	**.01**	2	2.06	.13	2	13.49	**.01**
Excitement	1	6.13	**.02**	2	2.35	.10	2	5.79	**.01**
Competence	1	39.35	**.01**	2	5.05	**.01**	2	1.89	.16
Attitude									
Symbolic Value	1	7.17	**.01**	2	5.97	**.01**	2	6.86	**.01**
Utilitarian Value	1	26.69	**.01**	2	2.11	.13	2	3.30	**.04**
ERROR	109			109			109		

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 2.3. Results for Univariate ANOVAs for interaction effects I

	ANOVA: Effects of Product Type by Metaphor											
	Control				Symbolic				Functional			
	df	dfE	F	p*	df	dfE	F	p*	df	dfE	F	p*
Symbolic Value	1	41	19.06	**.00**	1	45	0.4	.53	1	42	2.84	.10
Utilitarian Value	1	42	5.77	**.02**	1	46	33.03	**.00**	1	42	4.65	**.04**
Sophistication	1	43	3.34	.08	1	47	10.97	**.00**	1	41	0.22	.64
Sincerity	1	42	0.22	.65	1	46	53.22	**.00**	1	42	0.1	.76
Excitement	1	41	21.26	**.00**	1	45	0.64	.43	1	39	2.92	.10
Competence	1	41	8.71	**.01**	1	47	32.08	**.00**	1	41	10.85	**.00**

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 2.4. Results for Univariate ANOVAs for interaction effects II

ANOVA: Effect of metaphor on metaphorical relatedness (manipulation check)

	Difference emotional vs functional relatedness			
	df	**dfE**	**F**	**p***
	1	87	4.36	**.04**

ANOVA: Main Effects of Metaphor

	Control-Symbolic				Control-Functional				Symbolic-Functional			
	df	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***
Symbolic Value	1	75	3.29	.07	1	71	2.9	0.09	1	72	11.3	**.00**
Utilitarian Value	1	75	2.70	.11	1	71	3.29	0.07	1	72	0.01	.92
Sophistication	1	75	0.01	.92	1	71	0.12	0.73	1	72	0.18	.68
Sincerity	1	75	3.38	.07	1	71	0.32	0.58	1	72	2.36	.13
Excitement	1	75	0.03	.86	1	71	4.65	**0.03**	1	72	2.69	.11
Competence	1	75	8.62	**.00**	1	71	5.31	**0.02**	1	72	0.64	.43

ANOVA: Effects of Metaphor by Product Type

	Symbolic Product				Utilitarian Product			
	df	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***
Symbolic Value	2	68	1.93	.15	2	60	11.53	**.00**
Utilitarian Value	2	70	3.11	**.05**	2	60	1.79	.18
Sophistication	2	69	4.53	**.01**	2	62	2.35	.10
Sincerity	2	68	12.98	**.00**	2	62	1.47	.24
Excitement	2	69	4.36	**.02**	2	57	3.45	**.04**
Competence	2	69	5.33	**.01**	2	60	2.4	.10

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 2.5. Results for Univariate ANOVAs for interaction effects III

	ANOVA: Effects of Metaphor for Symbolic products											
	Control-Symbolic				**Control-Functional**				**Symbolic-Functional**			
	df	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***
Symbolic Value	1	44	1.36	.25	1	41	7.38	**.01**	1	43	1.96	.17
Utilitarian Value	1	44	6.82	**.01**	1	41	1.28	.26	1	43	3.30	.08
Sophistication	1	44	7.63	**.01**	1	41	1.15	.29	1	43	2.54	.12
Sincerity	1	44	18.13	**.01**	1	41	0.02	.89	1	43	22.92	**.01**
Excitement	1	44	6.76	**.01**	1	41	6.93	**.01**	1	43	0.01	.92
Competence	1	44	10.57	**.01**	1	41	2.83	.10	1	43	2.49	.12

	ANOVA: Effects of Metaphor for Utilitarian Products											
	Control-Symbolic				**Control-Functional**				**Symbolic-Functional**			
	df	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***	**df**	**dfE**	**F**	**p***
Symbolic Value	1	34	20.15	**.01**	1	31	0.05	.83	1	33	16.86	**.01**
Utilitarian Value	1	34	0.19	.66	1	31	1.09	.30	1	33	3.12	.09
Sophistication	1	34	5.17	**.03**	1	31	1.35	.25	1	33	0.91	.35
Sincerity	1	34	3.04	.09	1	31	0.08	.78	1	33	4.96	**.03**
Excitement	1	34	6.07	**.02**	1	31	0.19	.66	1	33	7.82	**.01**
Competence	1	34	0.9	.35	1	31	2.27	.14	1	33	0.36	.55

Notes. *Statistical significant values (p<.05) are boldfaced.

B 1 Pretest scales Study 2 - dutch

.

In hoeverre vind je de volgende uitspraken van toepassing op de metafoor waarmee de advertentie het product laat zien?

	helemaal niet						**helemaal**
1 Het is duidelijk wat de metafoor ten opzichte van het produkt zou betekenen.	☐	☐	☐	☐	☐	☐	☐
2 Deze metafoor geeft informatie over de werking van het produkt.	☐	☐	☐	☐	☐	☐	☐
3 Deze metafoor laat zien wat het produkt met je ervaring doet.	☐	☐	☐	☐	☐	☐	☐
4 Ik vind deze metafoor geschikt voor het produkt.	☐	☐	☐	☐	☐	☐	☐

Geef bij elk van de volgende woordparen aan, welk woord je meer van toepassing vindt bij deze metafoor.

1 Eenvoudig	☐	☐	☐	☐	☐	☐	☐	Complex
2 Duidelijk	☐	☐	☐	☐	☐	☐	☐	Verwarrend
3 Geloofwaardig	☐	☐	☐	☐	☐	☐	☐	Twijfelachtig
4 Interessant	☐	☐	☐	☐	☐	☐	☐	Oninteressant
5 Spannend	☐	☐	☐	☐	☐	☐	☐	Saai
6 Origineel	☐	☐	☐	☐	☐	☐	☐	Gewoon
7 Goed	☐	☐	☐	☐	☐	☐	☐	Slecht
8 Aantrekkelijk	☐	☐	☐	☐	☐	☐	☐	Onaantrekkelijk

B 1 Pretest scales Study 2 – german

Geben Sie bitte an, inwieweit Sie die folgenden Aussagen zutreffend finden.

	überhaupt nicht						**sehr zutreffend**
1 Mir ist deutlich, was diese Metapher über das Produkt vermitteln möchte.	☐	☐	☐	☐	☐	☐	☐
2 Diese Metapher informiert über die Wirkung der Inhaltstoffe des Produkts.	☐	☐	☐	☐	☐	☐	☐
3 Diese Metapher vermittelt eine Erfahrung, die durch das Produkt gemacht werden kann.	☐	☐	☐	☐	☐	☐	☐
4 Ich finde diese Metapher passt zu dem Produkt.	☐	☐	☐	☐	☐	☐	☐

Geben Sie bei den folgenden Wortpaaren an, welches der beiden Worte Sie, bezogen auf die Metapher, mehr zutreffend finden.

1 Einfach	☐ ☐ ☐ ☐ ☐ ☐ ☐	Komplex
2 Deutlich	☐ ☐ ☐ ☐ ☐ ☐ ☐	Verwirrend
3 Glaubwürdig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Zweifelhaft
4 Interessant	☐ ☐ ☐ ☐ ☐ ☐ ☐	Uninteressant
5 Spannend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Langweilig
6 Originell	☐ ☐ ☐ ☐ ☐ ☐ ☐	Gewöhnlich
7 Gut	☐ ☐ ☐ ☐ ☐ ☐ ☐	Schlecht
8 Anziehend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unattraktiv
9 Abstrakt	☐ ☐ ☐ ☐ ☐ ☐ ☐	Konkret

B 2 – Stimuli Study 2 – dutch

B 2 – Stimuli Study 2 – german

B 3 – Scales of Study 2 –dutch

De volgende items vragen je HOE VAAK specifieke gebeurtenissen plaatsvinden of hebben plaatsgevonden in uw leven. Laat uw antwoord op elke vraag zien door het rondje aan te klikken dat het meest op u van toepassing is.

	zelden of nooit				**heel vaak**
Bent u, vergeleken met de meeste mensen typisch niet in staat om uit het leven te halen wat je wilt?	☐	☐	☐	☐	☐
Heb je, toen je opgroeide, 'ooit grenzen overschreden' door dingen te doen die je ouders niet zouden goedkeuren?	☐	☐	☐	☐	☐
Hoe vaak heb je dingen bereikt die je er toe aangezet hebben om nog harder te werken?	☐	☐	☐	☐	☐
Werkte je je ouders vaak op de zenuwen toen je opgroeide?	☐	☐	☐	☐	☐
Hoe vaak hield je je aan de regels en voorschriften die door je ouders waren vastgesteld?	☐	☐	☐	☐	☐
Toen je opgroeide, heb je je toen ooit gedragen op een manier die je ouders verwerpelijk vonden?	☐	☐	☐	☐	☐
Doe je het vaak goed met verschillende dingen die je uitprobeert?	☐	☐	☐	☐	☐
Ik ben weleens in moeilijkheden geraakt door niet voorzichtig genoeg te zijn.	☐	☐	☐	☐	☐
Wat betreft het bereiken van dingen die belangrijk voor me zijn, vind ik dat ik niet zo goed presteer als ik idealiter zou willen.	☐	☐	☐	☐	☐

In hoeverre vind je de volgende uitspraken van toepassing in uw leven? Laat uw antwoord op elke vraag zien door het rondje aan te klikken dat het meest op u van toepassing is.

	zeker onwaar				zeker waar
Ik heb het gevoel dat ik vooruitgang heb geboekt in het succesvol zijn in mijn leven.	○	○	○	○	○
Ik heb heel weinig dingen gevonden in mijn leven die mij echt boeien en waar ik veel energie in wil stoppen.	○	○	○	○	○

(RFQ)

In hoeverre vind je de volgende stellingen van toepassing op de Aloë Vera drank?

	Helemaal niet						Helemaal wel
Ik denk dat dit product een gezonde keuze is.	○	○	○	○	○	○	○
Ik denk dat dit drankje goed is voor het lichaam.	○	○	○	○	○	○	○
Ik vind dat dit product een praktisch nut heeft.	○	○	○	○	○	○	○
Het drankje heeft een concrete en meetbare functie.	○	○	○	○	○	○	○
Dit drankje drink je hoofdzakelijk om van de werking van de inhoudstoffen te profiteren.	○	○	○	○	○	○	○
Dit drankje drink je, om van de smaak en de stemming van het product te genieten.	○	○	○	○	○	○	○
Dit is een trendy drankje.	○	○	○	○	○	○	○
Met dit drankje laat je zien wie je bent.	○	○	○	○	○	○	○
Dit drankje roept bepaalde emoties bij mij op.	○	○	○	○	○	○	○
Ik vind dat het product design het drankje een bepaalde persoonlijkheid geeft.	○	○	○	○	○	○	○
Ik heb zin om het product eens te proberen.	○	○	○	○	○	○	○

(Product Attitude)

Stel, je zult het product beschrijven net als een persoon. In hoeverre vind je de volgende eigenschappen van toepassing op de Aloë Vera drank?

	helemaal niet						helemaal wel
Charmant	○	○	○	○	○	○	○
Vrolijk	○	○	○	○	○	○	○
Gedurfd	○	○	○	○	○	○	○

Betrouwbaar	☐	☐	☐	☐	☐	☐	☐
Kinderachtig	☐	☐	☐	☐	☐	☐	☐
Efficiënt	☐	☐	☐	☐	☐	☐	☐
Serieus	☐	☐	☐	☐	☐	☐	☐
Knap	☐	☐	☐	☐	☐	☐	☐
Eerlijk	☐	☐	☐	☐	☐	☐	☐
Fantasievol	☐	☐	☐	☐	☐	☐	☐
Geavanceerd	☐	☐	☐	☐	☐	☐	☐
Vertrouwd	☐	☐	☐	☐	☐	☐	☐
Verantwoord	☐	☐	☐	☐	☐	☐	☐
Gevoelig	☐	☐	☐	☐	☐	☐	☐
Pittig	☐	☐	☐	☐	☐	☐	☐
Uitdagend	☐	☐	☐	☐	☐	☐	☐
Succesvol	☐	☐	☐	☐	☐	☐	☐
Interessant	☐	☐	☐	☐	☐	☐	☐
Bescheiden	☐	☐	☐	☐	☐	☐	☐
Upper-class	☐	☐	☐	☐	☐	☐	☐

(Product Personality)

Geef bij elk van de volgende woordparen aan, welk woord je meer van toepassing vindt op het product.

Aantrekkelijk	☐	☐	☐	☐	☐	☐	☐	Onaantrekkelijk
Sympathiek	☐	☐	☐	☐	☐	☐	☐	Onsympathiek
Motiverend	☐	☐	☐	☐	☐	☐	☐	Ontmoedigend
Wenselijk	☐	☐	☐	☐	☐	☐	☐	Onwenselijk
Effectief	☐	☐	☐	☐	☐	☐	☐	Ineffectief
Behulpzaam	☐	☐	☐	☐	☐	☐	☐	Niet behulpzaam
Functioneel	☐	☐	☐	☐	☐	☐	☐	Niet functioneel
Nodig	☐	☐	☐	☐	☐	☐	☐	Onnodig
Praktisch	☐	☐	☐	☐	☐	☐	☐	Onpraktisch

Niet leuk	☐ ☐ ☐ ☐ ☐ ☐ ☐	Leuk
Niet boeiend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Boeiend
Niet vermakelijk	☐ ☐ ☐ ☐ ☐ ☐ ☐	Vermakelijk
Begrijpelijk	☐ ☐ ☐ ☐ ☐ ☐ ☐	Onbegrijpelijk
Steunend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Belemmerend
Eenvoudig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Complex
Voorspelbaar	☐ ☐ ☐ ☐ ☐ ☐ ☐	Onvoorspelbaar
Duidelijk	☐ ☐ ☐ ☐ ☐ ☐ ☐	Verwarrend
Geloofwaardig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Twijfelachtig
Controleerbaar	☐ ☐ ☐ ☐ ☐ ☐ ☐	Oncontroleerbaar
Bekend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Vreemd
Interessant	☐ ☐ ☐ ☐ ☐ ☐ ☐	Oninteressant
Duur	☐ ☐ ☐ ☐ ☐ ☐ ☐	Goedkoop
Spannend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Saai
Exclusief	☐ ☐ ☐ ☐ ☐ ☐ ☐	Standaard
Indrukwekkend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Niet indrukwekkend
Origineel	☐ ☐ ☐ ☐ ☐ ☐ ☐	Normaal
Innovatief	☐ ☐ ☐ ☐ ☐ ☐ ☐	Conservatief
Plezierig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Onplezierig
Goed	☐ ☐ ☐ ☐ ☐ ☐ ☐	Slecht
Esthetisch	☐ ☐ ☐ ☐ ☐ ☐ ☐	Onesthetisch
Uitnodigend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Afwijzend

(Product Attitude)

In hoeverre vind je de volgende uitspraken van toepassing op de metafoor waarmee de advertentie het product laat zien?

	helemaal niet						**helemaal wel**
Het is duidelijk wat de metafoor ten opzichte van het product zou betekenen.	☐	☐	☐	☐	☐	☐	☐
Deze metafoor geeft informatie over de werking van het product.	☐	☐	☐	☐	☐	☐	☐
Deze metafoor laat zien wat het product met je ervaring doet.	☐	☐	☐	☐	☐	☐	☐

Ik vind deze metafoor geschikt voor het product.	☐	☐	☐	☐	☐	☐	☐

(Manipulation Check)

Wat is volgens u een goede prijs voor dit product? (Euro,Cent) *

(Pricing)

B 3 – Scales of Study 2 – german

Die folgenden Fragen richten sich darauf, WIE OFT bestimmte Ereignisse in Ihrem Leben passieren oder passiert sind.

	selten oder nie				**sehr oft**
Sind Sie verglichen mit anderen normalerweise unfähig, sich vom Leben das zu holen, was Sie bekommen möchten?	☐	☐	☐	☐	☐
Haben Sie beim Erwachsenwerden jemals „über die Stränge geschlagen", indem Sie etwas gemacht haben, war Ihre Eltern sicher nicht toleriert hätten?	☐	☐	☐	☐	☐
Wie oft haben Sie etwas erreicht, was Sie regelrecht dazu angespornt hat, noch härter zu arbeiten?	☐	☐	☐	☐	☐
Haben Sie beim Erwachsenwerden Ihre Eltern oft genervt?	☐	☐	☐	☐	☐
Wie oft befolgten Sie die Regeln oder Anordnungen Ihrer Eltern?	☐	☐	☐	☐	☐
Verhielten Sie sich beim Erwachsenwerden jemals auf eine Weise, die Ihren Eltern als anstößig galt?	☐	☐	☐	☐	☐
Schneiden Sie bei dem, was auch immer Sie anpacken, recht gut ab?	☐	☐	☐	☐	☐
Ich bin hin und wieder in Schwierigkeiten gekommen, weil ich nicht vorsichtig genug war.	☐	☐	☐	☐	☐
Wenn es darauf ankommt, etwas zustande zu bringen, was mir wichtig ist, dann arbeite ich meiner Meinung nach nicht so gut, wie ich das im Idealfall gerne täte.	☐	☐	☐	☐	☐

Inwieweit finden Sie die folgenden Aussagen für Ihr Leben zutreffend?

	sicher nicht wahr				sicher wahr
Was die Erfolge in meinem Leben betrifft, finde ich, dass ich Fortschritte gemacht habe.	☐	☐	☐	☐	☐
Ich habe in meinem Leben sehr wenige Hobbys oder Aktivitäten gefunden, die mich fasziniert oder zu besonderen Anstrengungen motiviert haben.	☐	☐	☐	☐	☐

Welche der beiden Aussagen finden Sie wichtiger, im Hinblick auf Ihr eigenes Leben?

Die Dinge zu machen, die ich machen muss. ☐ ☐ ☐ ☐ ☐ ☐ ☐ Die Dinge zu machen, die ich machen will.

(RFQ)

Inwieweit finden Sie die folgenden Aussagen für diesen Aloe Vera Drink zutreffend?

	überhaupt nicht						sehr zutreffend
Ich glaube, dass dieses Getränk gesund ist.	☐	☐	☐	☐	☐	☐	☐
Ich glaube, dass dieses Getränk gut für meinen Körper ist.	☐	☐	☐	☐	☐	☐	☐
Ich finde, dieses Produkt hat einen praktischen Nutzen.	☐	☐	☐	☐	☐	☐	☐
Das Getränk hat eine konkrete und messbare Funktion.	☐	☐	☐	☐	☐	☐	☐
Dieses Getränk trinkt man maßgeblich, um von der Wirkung der Inhaltsstoffe zu profitieren.	☐	☐	☐	☐	☐	☐	☐
Dieses Getränk trinkt man, weil man den Geschmack und die Stimmung, die das Produkt vermittelt, genießen will.	☐	☐	☐	☐	☐	☐	☐
Dieses Getränk ist stylisch.	☐	☐	☐	☐	☐	☐	☐
Mit diesem Getränk vermittelt man anderen etwas über sich selbst.	☐	☐	☐	☐	☐	☐	☐
Das Getränk weckt gewisse Gefühle in mir.	☐	☐	☐	☐	☐	☐	☐
Ich finde das Produkt Design gibt dem Getränks eine bestimmte Persönlichkeit.	☐	☐	☐	☐	☐	☐	☐
Ich würde das Produkt gern einmal ausprobieren.	☐	☐	☐	☐	☐	☐	☐

(Product Attitude III)

Gegeben, Sie sollen das Produkt in Termen von Charaktereigenschaften beschreiben. Inwieweit finden Sie die folgenden Charakterzüge für diesen Aloe Vera Drink zutreffend?

	überhaupt nicht						**sehr zutreffend**
Charmant	☐	☐	☐	☐	☐	☐	☐
Fröhlich	☐	☐	☐	☐	☐	☐	☐
Gewagt	☐	☐	☐	☐	☐	☐	☐
Vertrauenswürdig	☐	☐	☐	☐	☐	☐	☐
Kindisch	☐	☐	☐	☐	☐	☐	☐
Effizient	☐	☐	☐	☐	☐	☐	☐
Seriös	☐	☐	☐	☐	☐	☐	☐
Klug	☐	☐	☐	☐	☐	☐	☐
Ehrlich	☐	☐	☐	☐	☐	☐	☐
Fantasievoll	☐	☐	☐	☐	☐	☐	☐
Anmaßend	☐	☐	☐	☐	☐	☐	☐
Vetraut	☐	☐	☐	☐	☐	☐	☐
Verantwortungsvoll	☐	☐	☐	☐	☐	☐	☐
Einfühlsam	☐	☐	☐	☐	☐	☐	☐
Anspruchsvoll	☐	☐	☐	☐	☐	☐	☐
Herausfordernd	☐	☐	☐	☐	☐	☐	☐
Erfolgreich	☐	☐	☐	☐	☐	☐	☐
Interessant	☐	☐	☐	☐	☐	☐	☐
Bescheiden	☐	☐	☐	☐	☐	☐	☐
Elitär	☐	☐	☐	☐	☐	☐	☐

(Product Personality)

Geben Sie bei den folgenden Wortpaaren an, welches der beiden Worte Sie, bezogen auf das Produkt, zutreffender finden.

Attraktiv	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unattraktiv
Sympathisch	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unsympathisch
Motivierend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Entmutigend
Wünschenswert	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unerwünscht
Effektiv	☐ ☐ ☐ ☐ ☐ ☐ ☐	Ineffektiv
Hilfreich	☐ ☐ ☐ ☐ ☐ ☐ ☐	Nicht hilfreich
Funktionell	☐ ☐ ☐ ☐ ☐ ☐ ☐	Nicht funktionell
Notwendig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unnötig
Praktisch	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unpraktisch
Nicht reizvoll	☐ ☐ ☐ ☐ ☐ ☐ ☐	Reizend
Fad	☐ ☐ ☐ ☐ ☐ ☐ ☐	Aufregend
Unlustig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Erfreulich
Begreiflich	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unverständlich
Unterstützend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Hinderlich
Einfach	☐ ☐ ☐ ☐ ☐ ☐ ☐	Komplex
Vorhersagbar	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unvorhersehbar
Deutlich	☐ ☐ ☐ ☐ ☐ ☐ ☐	Verwirrend
Glaubwürdig	☐ ☐ ☐ ☐ ☐ ☐ ☐	Zweifelhaft
Kontrollierbar	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unkontrollierbar
Bekannt	☐ ☐ ☐ ☐ ☐ ☐ ☐	Fremd
Interessant	☐ ☐ ☐ ☐ ☐ ☐ ☐	Uninteressant
Teuer	☐ ☐ ☐ ☐ ☐ ☐ ☐	Billig
Spannend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Langweilig
Exklusiv	☐ ☐ ☐ ☐ ☐ ☐ ☐	Standard
Eindrucksvoll	☐ ☐ ☐ ☐ ☐ ☐ ☐	Aussagelos
Originell	☐ ☐ ☐ ☐ ☐ ☐ ☐	Normal
Innovativ	☐ ☐ ☐ ☐ ☐ ☐ ☐	Konservativ
Angenehm	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unangenehm

Gut	☐ ☐ ☐ ☐ ☐ ☐ ☐	Schlecht
Ästhetisch	☐ ☐ ☐ ☐ ☐ ☐ ☐	Unästhetisch
Einladend	☐ ☐ ☐ ☐ ☐ ☐ ☐	Abweisend

(Product Attitude)

Geben Sie bitte an, inwieweit Sie die folgenden Aussagen auf die das Produkt beschreibende Metapher zutreffend finden.

	überhaupt nicht					**sehr zutreffend**	
Mir ist deutlich, was diese Metapher über das Produkt vermitteln möchte.	☐	☐	☐	☐	☐	☐	☐
Diese Metapher informiert über die Wirkung des Produkts.	☐	☐	☐	☐	☐	☐	☐
Diese Metapher vermittelt eine Erfahrung, die durch das Produkt gemacht werden kann.	☐	☐	☐	☐	☐	☐	☐
Ich finde diese Metapher ist für das Produkt geeignet.	☐	☐	☐	☐	☐	☐	☐

(Manipulation Check)

Welcher Preis ist Ihrer Meinung nach für dieses Produkt angemessen? (Euro,Cent) *

(Pricing)

B 4 Result Tables Study 2

Table 3. Stimuli Development Study 2

Descriptives

	Functional Metaphor		**Control**		**Symbolic Metaphor**		
Scale	Mean	SD	Mean	SD	Mean	SD	N
Functional score	4.75	2.17	2.80	1.82	3.20	1.61	20
Symbolic score	2.80	1.82	2.15	1.57	5.00	1.52	20
Fit	3.65	1.95	3.90	2.13	4.00	1.78	20
Understanding	4.85	2.08	4.00	2.08	4.55	1.73	20

Paired Sample T-test Statistics

	Functional Metaphor		**Control**		**Symbolic Metaphor**	
	t(19)	P*	t(19)	P*	t(19)	P*
T-test func-symb	3.35	**<0.01**	1.66	0.11	-4.28	**<0.01**

Notes. *Significant results (p<.01) are boldfaced.

Table 3.1 Results for Product Perception by Metaphor Condition

	Descriptive Statistics I					
Metaphor	**Control (N=58)**		**Symbolic (N=57)**		**Functional (N=54)**	
	M	**SD**	**M**	**SD**	**M**	**SD**
Product Personality						
Sophistication	2.86	1.18	3.09	1.28	2.74	1.06
Sincerity	3.43	1.14	3.19	1.19	2.94	1.15
Excitement	3.21	1.24	3.43	1.18	3.14	1.27
Competence	3.31	1.45	3.04	1.29	3.03	1.31
Attitude I						
Appeal	3.73	1.26	3.83	1.40	3.59	1.19
Symbolic Value	3.56	1.34	3.95	1.22	3.58	1.16
Utilitarian Value	4.24	0.97	3.84	0.96	4.02	0.88
Attitude II						
Symbolic Value	3.35	1.39	3.61	1.33	3.31	1.19
Utilitarian Value	3.41	1.37	3.34	0.93	3.20	1.43
Attitude III						
Consume Intention	3.03	1.92	2.75	1.86	2.89	1.95
Symbolic Value	3.58	1.24	4.09	1.12	3.31	1.23
Utilitarian Value	3.57	1.34	3.42	1.05	3.41	1.48
Pricing	1.25	0.80	1.39	0.71	1.42	0.92

Notes. *Statistical significant values ($p<.05$) are boldfaced.

Table 3.2. Results for Product Perception by Regulatory Focus and Metaphor Condition

	Descriptive Statistics II											
	Promotion Focused						Prevention Focus					
Metaphor	**Control (N=31)**		**Symbolic (N=30)**		**Functional (N=24)**		**Control (N=27)**		**Symbolic (N=27)**		**Functional (N=30)**	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Product Personality												
Sophistication	2.77	1.26	3.12	1.16	2.98	1.16	2.97	1.10	3.06	1.40	2.55	0.94
Sincerity	3.22	1.23	3.03	1.20	3.21	1.21	3.68	0.99	3.38	1.20	2.72	1.07
Excitement	3.12	1.44	3.40	1.09	3.05	1.35	3.31	0.98	3.44	1.30	3.22	1.22
Competence	3.25	1.55	2.80	1.25	3.27	1.33	3.39	1.35	3.27	1.30	2.84	1.27
Attitude I												
Appeal	3.81	1.35	3.50	1.35	3.68	1.30	3.63	1.17	4.17	1.40	3.51	1.11
Symbolic Value	3.62	1.34	3.90	1.20	3.60	1.34	3.50	1.29	4.02	1.30	3.56	1.01
Utilitarian Value	4.28	1.03	3.70	1.00	4.04	0.94	4.19	0.89	4.04	0.90	4.04	0.93
Attitude II												
Symbolic Value	3.47	1.59	3.30	1.14	3.97	1.29	3.21	1.14	3.97	1.29	3.19	1.15
Utilitarian Value	3.38	1.46	3.04	0.93	3.13	1.34	3.44	1.30	3.68	0.83	3.26	1.53
Attitude III												
Consume Intention	3.16	2.15	2.50	1.78	3.46	1.96	2.89	1.65	3.04	1.95	2.43	1.85
Symbolic Value	3.63	1.29	4.07	1.08	3.55	1.08	3.53	1.19	4.11	1.18	3.13	1.33
Utilitarian Value	3.55	1.45	3.30	1.21	3.26	1.52	3.60	1.22	3.55	0.85	3.54	1.46
Pricing	1.41	0.96	1.23	0.61	1.34	1.08	1.05	0.50	1.56	0.77	1.49	0.79

Notes. *Statistical significant values ($p<.05$) are boldfaced.

Table 3.3. Analysis of statistical significance for multivariate effects

	MANOVA			
Source	**df**	**Error**	**F**	**p***
Metaphor (A)	26	302	1.64	**.03**
Regulatory Focus (B)	13	151	0.83	.63
A X B	26	302	1.33	.14

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 3.4. Results of univariate ANOVAs for Metaphor and Regulatory Focus

	Main Effects								
	Metaphor (A)			**Regulatory Focus (B)**			**A x B**		
	df	**F**	**p***	**df**	**F**	**p***	**df**	**F**	**p***
Product Personality									
Sophistication	2	1.10	0.33	1	0.25	0.62	2	1.01	0.37
Sincerity	2	2.46	0.09	1	0.36	0.55	2	2.81	0.06
Excitement	2	0.83	0.44	1	0.43	0.52	2	0.08	0.92
Competence	2	0.70	0.50	1	0.05	0.82	2	1.40	0.25
Attitude I									
Appeal	2	0.53	0.59	1	0.28	0.60	2	1.91	0.15
Symbolic Value	2	1.77	0.17	1	0.00	0.97	2	0.16	0.85
Utilitarian Value	2	2.38	0.10	1	0.56	0.46	2	0.97	0.38
Attitude II									
Symbolic Value	2	0.99	0.37	1	0.06	0.81	2	2.46	0.09
Utilitarian Value	2	0.44	0.65	1	2.03	0.16	2	0.90	0.41
Attitude III									
Consume Intention	2	0.27	0.76	1	0.75	0.39	2	2.34	0.10

Symbolic Value	2	5.64	**0.00**	1	0.76	0.39	2	0.54	0.58
Utilitarian Value	2	0.29	0.75	1	0.90	0.34	2	0.13	0.88
Pricing	2	0.87	0.42	1	0.10	0.76	2	2.83	0.06
ERROR	163			163			163		

Notes. *Statistical significant values (p<.05) are boldfaced.

Table 4. Specific Questions about Product Properties

	Metaphor					
	control		**symbolic**		**functional**	
	M	**SD**	**M**	**SD**	**M**	**SD**
Ik denk dat dit product een gezonde keuze is.	4.03	1.79	3.98	1.68	3.72	1.75
Ik denk dat dit drankje goed is voor het lichaam.	3.95	1.86	3.95	1.60	3.65	1.76
Ik vind dat dit product een praktisch nut heeft.	3.03	1.75	2.54	1.28	2.98	1.71
Het drankje heeft een concrete en meetbare functie.	2.41	1.58	2.46	1.36	2.56	1.57
Dit drankje drink je hoofdzakelijk om van de werking van de inhoudstoffen te profiteren.	4.43	1.71	4.18	1.75	4.17	1.85
Dit drankje drink je, om van de smaak en de stemming van het product te genieten.*	3.59	1.64	4.47	1.64	3.70	1.86
Dit is een trendy drankje.	3.47	1.80	3.53	1.73	3.02	1.77
Met dit drankje laat je zien wie je bent.*	3.78	1.71	4.42	1.73	3.56	1.89
Dit drankje roept bepaalde emoties bij mij op.*	3.24	2.04	4.11	1.95	2.80	1.76
Ik vind dat het product design het drankje een bepaalde persoonlijkheid geeft.	3.84	1.83	3.91	1.95	3.50	1.96
Ik heb zin om het product eens te proberen.	3.03	1.92	2.75	1.86	2.89	1.95

Notes