# **Original Article**

# You're so lovable: Anthropomorphism and brand love

Received (in revised form): 15th April 2014

#### Philipp A. Rauschnabel

is a Research Assistant and PhD student at Otto-Friedrich-University of Bamberg, Germany. His research focus is on brand management with a focus on consumer-brand relationships and social media. He has published several journal articles, conference papers and book chapters on these topics. Furthermore, he performed consulting services for several companies and organizations on these topics.

#### Aaron C. Ahuvia

is a Professor of Marketing at the University of Michigan-Dearborn. In 1993, he published the first major scientific study on consumers' love for products and brands, and since then has become a recognized authority on brand love. He also studies the relationship between income, consumption and happiness. He has over 100 academic publications including papers in the Journal of Marketing, the Journal of Consumer Research, the Journal of Personality and Social Psychology, American Psychologist and other leading journals.

ABSTRACT Brand love has been found to predict brand loyalty measures better than conventional attitude models that rely on the brand's perceived quality. Hence, marketers are interested in factors that lead to brand love. This study investigates the influence of anthropomorphism on brand love in the context of defensive marketing. We identified five possible theoretical mechanisms through which anthropomorphism may influence brand love: category-level evaluation, cognitive fluency, cognitive consistency, self-extension and self-congruence. The results reveal that the level of quality and anthropomorphism that a consumer perceives the brand has are important antecedents of brand love. Moreover, anthropomorphism's predictive power differs between evaluative and relationship-specific dimensions of brand love.

Journal of Brand Management (2014) 21, 372-395. doi:10.1057/bm.2014.14

**Keywords:** brand love; consumer–brand relationships; anthropomorphism

#### INTRODUCTION

The concept of consumer–brand relationships has gained increased attention in marketing academia and practice during the last years (c.f. Guese, 2010 for a review). Starting with her now classic article, Fournier (1998) laid the theoretical foundation for consumer–brand relationships research and

identified several relationship types, including love.

Brand love refers to consumers' love for brands and branded products or services (Ahuvia, 1992, 1993; Bauer *et al*, 2007; Albert *et al*, 2008, 2012; Lastovicka and Sirianni, 2011; Batra *et al*, 2012; Heinrich *et al*, 2012; Albert and Merunka, 2013; Fetscherin *et al*, 2014).

Correspondence: Philipp A. Rauschnabel Department of Marketing, Otto-Friedrich-University of Bamberg, Feldkirchenstr. 21, Bamberg 96052, Germany E-mail: Philipp.rauschnabel@ uni-bamberg.de



From a brand management perspective, brand love can play a similar role to customer satisfaction, brand attitude, perceived quality and other constructs that brand managers use as targets in their strategic planning (Bergkvist and Bech-Larsen, 2010). Batra *et al* (2012, p. 10) found that brand love predicted brand loyalty, word-of-mouth (WOM) and resistance to negative brand information, better than 'conventional attitude models in marketing that rely on the brand's perceived high quality' did.

Prior research provides insights in the underlying mechanisms that lead to brand love. For example, Carroll and Ahuvia (2006) show that brand love tends to be higher for products that provide hedonic and symbolic benefits. Other scholars (for example, Albert and Merunka, 2012; Albert et al, 2012; Vlachos and Vrechopoulos, 2012) highlight the importance of consumers' trust in a brand, their identification with a brand and several image attributes associated with a brand. Bergkvist and Bech-Larsen (2010) find that brand love tends to be stronger when consumers feel a sense of community with other consumers of the brand. Moreover, Rauschnabel et al (2015) found that extraverts and neurotics are particularly prone to brand love, because these consumers see particular brands as relationship partners. This study extends prior research on brand love by investigating the role of anthropomorphism as a potential antecedent.

Particularly, this study addresses the following research questions: is anthropomorphism significantly related to brand love? If so, why? And how strong is this connection relative to other known predictors of brand love, such as the perceived level of brand quality? Five theoretical mechanisms by which anthropomorphism could lead to brand love are proposed, tested and empirically supported. Findings indicate that anthropomorphism may have a particularly powerful ability to intensify brand

love. This study contributes to the extant literature on consumer—brand relationships by pointing out several similarities between interpersonal relationships and brand love. Finally, we discuss strategies how managers can anthropomorphize their brands.

#### **Brand love**

Most academic research on brand love started with theories of interpersonal love and applied them to consumer behavior (Shimp and Madden, 1988; Carroll and Ahuvia, 2006; Heinrich et al, 2008, 2009, 2012). Other research, such as Ahuvia (1993), Albert et al (2008), Ortiz and Harrison (2011), and Batra et al (2012), took a different approach that started with in-depth qualitative theory-building research on things that people loved, and then looked at how this non-interpersonal love compared with interpersonal love. In Albert et al (2008) and Batra et al (2012), this was followed by quantitative survey research. We will focus here on the recent work by Batra et al (2012) as it provides the strongest evidence for its definitions and measures, which are discussed below. On the basis of a structural equation analysis, Batra et al (2012) created a brand love model containing the following seven major dimensions (in bold), three of which contain multiple subdimensions (in italics).

**Positive attitude valence**: The consumer evaluates the love object positively, using whatever criteria are most relevant for that type of thing.

**Positive emotional connection**: The consumer experiences (i) a sense of 'rightness' or *intuitive fit* between him or herself and the love object, (ii) *positive affect* when thinking about or using the love object and (iii) *emotional attachment* to the love object.

**Self-brand integration**: The love object is integrated into the consumer's (i) *current self-identity* and (ii) *desired self-identity*. It represents deeply held values and

group identities that help create (iii) *life* meaning and other intrinsic rewards, rather than simply being a tool to accomplish a goal. This strong incorporation of the love object into the consumer's self is supported by (iv) frequent thoughts<sup>1</sup> about the love object.

**Passion-driven behaviors**: The consumer has a high level of (i) *things done in the past* (aka past involvement and interaction) with the love object, (ii) a current *passionate desire to use* it and (iii) a *willingness to invest resources* such as time and money in it.

**Long-term relationship**: The consumer wishes the love object to be a part of his or her life for a long time to come.

**Anticipated separation distress**: If the love object were to disappear, it would be emotionally painful for the consumer.

Attitude strength:<sup>2</sup> The consumer has a high degree of certainty in, and confidence about, his opinions regarding the love object. (Note: Research that has used the Batra  $et\ al\ (2012)$  brand love conceptualization (Bagozzi  $et\ al\ (2013)$ ; Rauschnabel  $et\ al\ (2013)$  reported statistical concerns with the attitude strength dimension, including low  $\alpha$  values and small AVE-values. Similar issues were encountered in this data. Hence we have dropped this dimension from the brand love construct, and to save space we have omitted any discussion or analysis of it.)

This definition of love encompasses several previously observed consumer behavior constructs. Indeed, much like Fournier's (1998) concept of brand relationship quality, brand love is a higher order construct that includes several other constructs known to play roles in creating strong and positive relationships. Why might this be the case? From an evolutionary perspective, love plays an exceptionally important role in the survival of our species (Buss, 1988; Bartels and Zeki, 2004). Romantic love brings a couple together to form a family. Love between all the family members helps keep the family together, and encourages

parental sacrifice for the children during the many years it takes a human baby to reach maturity. Finally, love for the larger social group (for example, the tribe) facilitates vitally important collective action. As love plays such a critical role in the evolutionary success of individuals and groups, love must be motivationally powerful. In order for love to achieve this strong power to influence behavior, it is not surprising that love includes several powerful psychological mechanisms.

There were two other findings from Batra et al (2012) that are important to note here. First, love is a relationship not just an emotion. Emotions are quite different from relationship types. For instance, emotions short-term affective experiences, whereas relationships can last a lifetime and involve a range of different emotions. The specific emotion a person experiences with regard to an object depends partly on whether the person attributes volition to the object (Ortony et al, 1988). For example, a key difference between anger and frustration is that people experience anger at someone they believe is culpable for a negative event, but experience frustration when a negative event is not attributed to someone's, or something's, blameworthy behavior. For example, when a computer malfunctions we may feel frustration with the technology and anger towards the people who produced the technology, but the common experience of being angry with the computer itself requires some anthropomorphic thinking in which the computer is an 'intentional agent' (Kervyn et al, 2012) deserving our wrath (Ortony et al, 1988).

Second, the brand love construct is relevant, even when a consumer's relationship with a brand is not intense enough to normally be considered love. Brand love, like most psychological constructs, is measured using self-report scales that typically range from, say, 1 to 7 (Ahuvia *et al*, 2013). In



everyday language, people often reserve the word love for only very important relationships or very strong feelings, perhaps a 6 or above on a 7-point brand love scale. Moving a consumer from, say, a 3 to a 4 on this brand love scale does not produce an intense enough relationship for many people to consider it 'love'. Nonetheless, moving a consumer from a 3 to a 4 does produce important improvements in loyalty, WOM and resistance to negative information (Batra et al, 2012). Therefore, from a managerial perspective, customers do not necessarily need to have an intense love for a brand; they just need to love it a little bit more than they love the competition. Hence, brand love is an appropriate construct to use in typical studies of consumer behavior and not just in exceptional cases of intense relationships.

# **Anthropomorphism**

The primary definition of anthropomorphism is 'the tendency to imbue the real or imagined behavior of non-human agents with humanlike characteristics, motivations, intentions, or emotions' (Epley et al, 2007, p. 864). Whereas this definition of anthropomorphism refers to a psychological phenomenon (henceforth anthropomorphic thinking), the word can also be used to refer to human-like features of objects that inspire such thinking, that is anthropomorphic product features such as car headlights and grills that resemble human faces (Landwehr et al, 2011). Although its formal definition is fairly broad, the term anthropomorphism is generally used in a narrower sense in the psychological and consumer research literature (Waytz et al, 2010b). First, the word 'anthropomorphism' usually refers to anthropomorphic thinking – that is, perceiving a product, brand or other object as having human characteristics (Waytz et al, 2010a), whereas anthropomorphic product features are of interest primarily as ways of stimulating anthropomorphic thinking

(Epley et al, 2007). Second, while in principle attributing any human trait to a nonhuman entity constitutes anthropomorphism, researchers have been overwhelmingly interested in the attribution of human-like mental states to things (for example, Epley et al, 2007; Kervyn et al, 2012), a type of anthropomorphism known as mentalizing (Waytz et al, 2010; Willardand Norenzayan, 2013). The prior literature has amply demonstrated that consumers have a strong tendency to engage in anthropomorphic thinking, as they mentalize brands, products and objects of all sorts (Kiesler, 2006; Aggarwal and McGill, 2007; Ahuvia, 2008; Landwehr et al, 2011; Delbaere et al, 2011; Kervyn et al, 2012; Hart et al, 2013; Puzakova et al, 2013).

# **Defensive marketing strategy**

We investigate the relationship between brand love and anthropomorphism, specifically within the context of defensive marketing strategy. Whereas offensive strategy refers to attempts to get new first-time customers, defensive strategy includes encouraging repeat purchase, upselling, cross selling and other attempts to increase the profitability of existing customers (Fornell and Wernerfelt, 1987). Current approaches to marketing such as Nordhielm (2006), are based on the premise that there are fundamental differences in the ways firms should conduct themselves when targeting customers who are already favorably disposed towards the brand, as compared with potential customers who have less favorable opinions or no opinion at all. In this article, we are looking specifically at how to approach customers who already view the brand positively. Data on decreasing brand loyalty shows that even when consumers have a very favorable attitude towards a brand, their patronage is far from guaranteed (Fournier and Yao, 1997). Therefore, increasing brand love among these customers could easily

translate into increased sales. Furthermore, because of social media, WOM (or word-of-mouse) is even more important than it was in the past. When companies encourage consumers to create buzz about their brand, it only makes sense for the firm to focus on consumers who are favorably disposed towards the brand, so as to avoid negative comments. As increased brand love leads to increased WOM (Batra *et al*, 2012), targeting customers who already like the brand and attempting to convert that into a stronger love for the brand, is a sensible strategy for promoting brand buzz.

# THEORY DEVELOPMENT AND HYPOTHESES

We saw above that brand love is composed of several dimensions and subdimensions (henceforth referred to simply as 'dimensions' for parsimony). A central premise of this study (and also of Batra et al, 2012) is that these dimensions are not synonymous or interchangeable but rather complementary. There is no reason to assume that any given cause will impact these dimensions in the same way or with the same intensity. On the contrary, the fact that these are different dimensions implies just the opposite, that any given cause may affect each dimension differently. Therefore, we have adopted a research strategy that is similar to Pieters' (2013) work on materialism that looked specifically at each of the underlying dimension of the materialism construct (Richins and Dawson, 1992).

In a sense, any research on a multidimensional construct is an investigation of its dimensions. This is because multidimensional constructs, even when measured reflectively, comprise their dimensions and have no separate existence over and above those dimensions (if the higher order construct existed independently of its 'dimensions' they would be predictors or indicators of that construct, rather than dimensions). Nonetheless, researchers working on topics involving higher order constructs often frame their work as an investigation of the higher level construct without explicit theorizing about the underlying dimensions. This approach, however, will not work well here because brand love has a fairly large number of dimensions and these dimensions are conceptually quite distinct from each other. Therefore, framing the research around the brand love dimensions is needed to specify the theoretical mechanisms linking anthropomorphism and brand love.

The fact that all of the brand love dimensions load on a single higher order factor indicates that they are parts of a single phenomenon, albeit diverse and distinct parts of that phenomenon. We assume that the most detailed level of analysis, there is a complex spider's web of relationships linking the brand love dimensions with each other. To keep this research tractable and focused on the key theoretical mechanisms, we will not attempt to address every plausible causal relationship. Rather, we will limit this research to testing only the most direct relationships between anthropomorphism and brand love.

Prior research suggests five theoretical mechanisms linking anthropomorphism to brand love: category-level evaluation, cognitive fluency, cognitive consistency, close relationships as self-extension and self-congruence. Each theoretical mechanism is discussed below. The connections between each of these mechanisms and brand love are listed in Table 1.

#### Category-level evaluation

Anthropomorphic thinking places objects into the human category. As the stereotyping literature amply demonstrates (Wheeler and Petty, 2001; Herz and Diamantopoulos, 2013), the evaluation of individual category members is influenced



by the evaluator's attitude towards the category as a whole. The human category is generally seen in positive terms, as evidenced by the value people place on human life and the typical view that people are superior to other animals, not to mention plants, rocks etc. When objects get placed in the human category, people may evaluate them based on that category membership (Aggarwal and McGill, 2007), and see them in a positive light. Therefore, although exceptions to the rule exist in specific circumstances (for example, Aggarwal and McGill, 2007; Kim and McGill, 2011; Puzakova et al, 2013), generally speaking 'anthropomorphism has been shown to enhance consumer evaluations of a product' (see also Kiesler and Goetz, 2002; Epley et al, 2008; Delbaere et al, 2011; Hart et al, 2013, p. 109).

If anthropomorphism leads to improved product evaluations, this likely influences many of the brand love dimensions. However, as noted above, we will only state hypotheses pertaining to the most direct and powerful of these influences. As attitude valence reflects the overall evaluation of a brand (Batra et al, 2012), it should be particularly impacted by improved brand evaluations. Furthermore, if consumers think more highly of something they own, they should be more likely to use it. Finally, Ahuvia (1993) found that consumers frequently reason as follows: 'since I desire to be an excellent person, I should construct my identity out of excellent things'. Hence, if something is viewed as excellent, people are more likely to include it within their desired self-identity.

**Hypothesis 1:** Anthropomorphism is positively related to the brand love dimensions of:

- (a) positive attitude valence;
- (b) desire to use the product;
- (c) desired self-identity.

#### **Cognitive fluency**

One of the more interesting findings in the anthropomorphism literature is that people are more inclined to engage in anthropomorphic thinking when they have a strong desire to get a product to do something but lack the knowledge they need to make that happen (Epley *et al*, 2007, 2008; Waytz *et al*, 2010). Lacking the knowledge they need, people in these situations fall back on the knowledge they have. As people have *a lot* of knowledge about human behavior, they use this knowledge to understand the product in question, they engage in anthropomorphic thinking.

In this account, anthropomorphism is a heuristic, although we are not aware of that term being applied to anthropomorphism previously. Kahneman (2011) explains that people use heuristics when they want to answer a difficult question (for example, 'what are the odds of a plane crash?') but cannot do so they answer an easy but related question (how many plane crashes can I easily remember?) instead. Similarly, if people lack the answer to a difficult question (how do I get this computer to do what I want?), they may non-consciously substitute an easier question (how would I get a person to do what I want?) in its place, leading them to anthropomorphize the computer. In these situations, the extent to which a person anthropomorphizes an object will depend on their level of relevant expertise (the more expertise, the less anthropomorphism is needed) and how motivated they are to get the product to cooperate (i.e. their level of effectance motivation).

This does not imply that anthropomorphism actually helps the consumer get the product to perform as desired. The fundamental insight here is that when a person is thinking through an issue involving a product or brand, anthropomorphism does not always lead to better answers, but it does lead to *easier* answers (Waytz *et al*, 2010a). As this is described in the

psychological literature, anthropomorphism leads to increased *cognitive fluency* (Delbaere *et al*, 2011), where cognitive fluency is the ease or difficulty of a cognitive process. High cognitive fluency feels good providing a sense of intuitive fit with the product, whereas low cognitive fluency is frustrating (Aggarwal and McGill, 2007; Belke *et al*, 2010). Hence, *ceteris paribus*, the experience of using a product while engaged in anthropomorphic thinking should be relatively pleasant (Delbaere *et al*, 2011), which in turn should increase the desire for further usage.

**Hypothesis 2:** Anthropomorphism is positively related to the brand love dimensions of:

- (a) positive affect when thinking about or using the product;
- (b) intuitive fit; and
- (c) desire to use the product.

The reader may have noted that Hypotheses 1b and 2c both hypothesize that anthropomorphism will be related to a passionate desire to use the brand. We believe that this simply reflects reality – both category-level evaluation and cognitive fluency lead to the same prediction. Had this been the only hypothesis for both Hypotheses 1 and 2, the two would be completely conflated. However, because both Hypotheses 1 and 2 also contain non-overlapping hypotheses, we can look to the total pattern of results to assess each hypothesis.

# Cognitive consistency

All theories of brand love are based on the premise that love evolved for interpersonal relationships and was much later applied to products and brands. Batra *et al* (2012) are sometimes misunderstood as denying this basic premise. This confusion arises because Batra *et al* (2012, pp. 1–2) criticized some past brand love research for omitting 'the exploratory work needed in the early stages

of research to establish the boundaries and contents of the key construct', and instead 'assuming the equivalence of brand love and interpersonal love'. Nonetheless, Batra et al (2012) do not deny that brand love is derived from interpersonal love. Rather, they found that brand love was based on interpersonal love 'but also modified to fit a consumer context' (Batra et al, 2012, p. 5). Therefore, research is needed to investigate these modifications in order to fully understand brand love. However, 'this does not mean that it is inappropriate to use the interpersonal relationship literature as a source of hypotheses, or even as supporting evidence, for research on consumer-brand relationships' (Batra et al, 2012, p. 12). Moreover, interpersonal love remains the foundation on which brand love is built.

In a study of non-interpersonal love, Ahuvia (1993) found that things that resembled people (for example, dogs) were more likely to be truly loved than were things that did not resemble people (for example, the summer time). This can be explained by the fact that the human mind likes cognitive consistency (Festinger, 1957; Higgins, 1987; Crandall et al, 2007; Awa and Nwuche, 2010), that is, the mind prefers situations in which one's different beliefs and attitudes fit together in a coherent way. Love is viewed primarily as an interpersonal relationship (Fehr and Russell, 1991). Therefore, the more something is like a person, the more cognitively consistent it is to love that thing. Anthropomorphic thinking makes whatever the person is thinking about more humanlike, and hence more consistent with love, that is, more lovable.

The problem of cognitive consistency is more pressing for some dimensions of brand love than it is for others. To get an intuitive sense for this, consider that it feels very normal to say 'Audi is very good' but it feels a little weird to say 'Audi is a good friend'. This is because calling Audi a 'friend' is somewhat inconsistent with the common



idea of what a friend is (presuming the brand is not already highly anthropomorphized). Because of this cognitive inconsistency, thinking about a product or brand in terms of some dimensions of brand love is like putting on shoes that are a size too big; you can do it but it's a somewhat awkward fit. In contrast, for other brand love dimensions, such as positive attitude valence (that is, 'Audi is very good'), are considered a normal way of thinking about objects and do not result in cognitive inconsistency. In fact, this type of evaluation is sometimes seen by ethicists as only appropriate for objects, because it is 'objectifying' when applied to people (Buber, 2010).

Cognitive consistency problems tend to arise in brand love with regard to the more 'relational' dimensions of the construct, such as calling a brand a friend. Marston et al (1987) identified several ways in which people experience interpersonal love, some of which were what they called relational constructs such as feeling bonded to the other person, whereas others were more individual experiences such as feeling excited. Similarly in brand love, some dimensions of brand love have a strong relational emphasis such as feeling bonded to the brand, wishing for a long-term relationship with the brand and feeling a sense of personal loss if the brand were to go away (that is, anticipated separation distress). If anthropomorphism allows brands to be perceived as intentional agents with motivations and abilities (Kervyn et al, 2012), they become more plausible relationship partners. Anthropomorphism should therefore increase the sense of relationship with the brand, which should be reflected primarily in the more relational components of brand love, in particular (i) emotional attachment, (ii) long-term relationship and (iii) anticipated separation distress. This would be consistent with past studies finding that people sometimes engage in anthropomorphic thinking to help meet their social needs (Epley et al, 2007), and that

anthropomorphic thinking enhances the sense of bonding between the consumer and the anthropomorphized object (Sundar, 2004; Hart *et al*, 2013). This is also reflected in findings that people who anthropomorphize cars keep them longer (Chandler and Schwarz, 2010) and have been reported to treat them better (Levine, 2009) than those who did not.

Moreover, Lastovicka and Sirianni (2011) found that consumers who loved their cars sometimes bought ancillary products related to the car as a way of nurturing that possession, perhaps even giving it a gift. This type of behavior is cognitively consistent with an interpersonal relationship, but not with a person—object relationship. Hence, anthropomorphic thinking should reduce this cognitive inconsistency and increase the extent of that kind of nurturing behavior. The brand love dimension of (iv) willingness to invest resources specifically measures these behaviors.

In conclusion, because anthropomorphism increases cognitive consistency, it should be particularly related to the more relational brand love dimensions.

**Hypothesis 3:** Anthropomorphism is positively related to the brand love dimensions of:

- (a) emotional attachment;
- (b) long-term relationship;
- (c) anticipated separation distress;
- (d) willingness to invest resources.

#### Close relationships as self-extension

We have just argued that anthropomorphic thinking makes products and brands into more appropriate relationship partners, thus promoting closer relationships. Research has demonstrated that, through automatic non-conscious processes, closer relationships create a deeper integration of the relationship partner into the self (Aron *et al*, 1991, 1992;

Aron and Aron, 1996; Aron and Fraley, 1999; Aron, 2003; Lewandowski *et al*, 2006; Reiman and Aron, 2009a, b). This also applies to consumer–brand relationships, that is, close consumer–brand relationships also involve the inclusion of a brand in a consumer's self (Ahuvia *et al*, 2009; Reiman and Aron, 2009a, b; Reimann *et al*, 2012). Therefore, presuming that Hypothesis 3 is supported and anthropomorphism leads to closer consumer–brand relationships, it should also be associated with greater self-brand integration.

**Hypothesis 4:** Anthropomorphism is positively related to the self-brand integration dimension of brand love.

#### **Self-congruence**

Homophily (that is, people like others who are similar to themselves) is a well-documented aspect of interpersonal relationships (McPherson *et al*, 2001). In consumer behavior homophily is called self-congruence, that is, the extent to which the brand is congruent with the consumer's self (Sirgy, 1982). Consumers are attracted to self-congruent brands, for example, brands whose personality matches their own (Aaker, 1997; Malär *et al*, 2011). The way that self-congruity creates an attraction to a brand, mirrors the way homophily creates an attraction to another person, suggesting a similarity between interpersonal and consumer—brand relationships.

As noted in several places above, consumers do not see all brands as relationship partners. Homophily/self-congruence is likely to only be a relevant factor in situations where the consumer does see the brand as, in some sense, a relationship partner. Imagine situation (i) in which the idea that 'the brand is a person' leads to the idea that 'the brand is a person like me'; and compare that with situation (ii) in which the idea that 'the brand is a person' leads to the idea that 'the brand is a person' leads to the idea that 'the brand is a person different from me'. If

people are actually forming social relationships with brands, then because of homophily, situation (i) should produce more brand love than situation (ii) (cf., Malär *et al*'s (2011) study on self-congruence and emotional brand attachment). This effect should be particularly direct and strong for the relational dimensions of brand love.

**Hypothesis 5:** The effect of anthropomorphism on these brand love dimensions is mediated by perceived self-congruence:

- (a) emotional attachment;
- (b) long-term relationship;
- (c) anticipated separation distress;
- (d) willingness to invest resources;
- (e) self-brand integration.

# Anthropomorphism and the higher order brand love construct

The previous hypotheses addressed specific dimensions of brand love. Since, *ceteris paribus*, if even a single component changes the overall brand love measure will change, we offer Hypothesis 6.

**Hypothesis 6:** Anthropomorphism is positively related to brand love as a whole.

As we hypothesize that the mediation effect will hold for at least one dimension of brand love, we follow the same logic used in Hypothesis 6 and hypothesize that it should also hold for the higher order brand love construct.

**Hypothesis 7:** The effect of anthropomorphism on brand love as a whole is mediated by perceived self-congruence.

# Comparing quality and anthropomorphism as predictors of brand love

The previous hypotheses addressed whether anthropomorphism is related to brand



love, and if so, why? It is also useful to assess the strength or importance of the anthropomorphism-brand love connection by comparing anthropomorphism with a more established predictor of brand love - brand quality (Batra et al, 2012). It is well documented that people tend to see both the people they love (Murstein, 1988; Bartels and Zeki, 2004) and the things they love (Ahuvia, 1993; Carroll and Ahuvia, 2006; Albert et al, 2008; Ahuvia et al, 2009; Johnson et al, 2011; Batra et al, 2012; Loureiro and Kaufmann, 2012; Vlachos and Vrechopoulos, 2012) as being excellent. So not surprisingly, perceived quality has been related to brand love in past studies (Carroll and Ahuvia, 2006; Albert et al, 2008; Batra et al, 2012), and Grisaffe and Nguyen (2011) identified several qualityrelated constructs that lead to emotional brand attachment, which is similar to brand love. This leads to our next hypothesis.

**Hypothesis 8:** Perceived quality is positively related to brand love as a whole.

Theory suggests that perceived quality will have a particularly strong connection to the positive attitude valence dimension of brand love (Park et al, 2006). In fact, quality evaluations and positive attitude valence are conceptually so close to each other, that some readers may find it helpful for us to disambiguate the two. Quality evaluations refer to the design and manufacture of the product and is therefore a narrower construct than attitude valance, which refers to a person's overall negative versus positive evaluation of a product. For example, if consumers learn that manufacturing a product creates a lot of pollution, this might lead them to have more negative attitudes about the product without directly influencing their views on the product's quality.

Research by Park et al (2006) suggests that we should see significant differences between how quality evaluations influence positive attitude valance, versus how

these evaluations influence the more relational dimensions of brand love. According to Park *et al* (2006), attitudes are generally more 'evaluation based' (p. 5) that relationships and attachments are. Therefore, quality evaluations should have a particularly strong and direct impact on the positive attitude valence dimension of brand love. In contrast, the theoretical mechanism discussed above entail that anthropomorphism is related to many of the other brand love dimensions. This brings us to our final hypotheses.

**Hypothesis 9a:** Perceived quality outperforms anthropomorphism in predicting the positive attitude valence dimension of brand love.

**Hypothesis 9b:** Anthropomorphism outperforms perceived quality in predicting the other dimension of brand love (hypothesized in Table 1).

#### **Control variables**

Our model controls for age and gender, because these variables could be linked to anthropomorphism (Epley et al, 2007) and should also be related to product category preferences. We also control for overall importance consumers place on brands in the relevant category (that is, if we are asking about a clothing brand, then we control for the overall importance they place on brands when shopping for clothing) and their general tendency to love brands. We did this to parcel out positive or negative feelings about brands in general, from loving a specific brand. We also control for consumers' tendency to love brands in general. Finally, as a form of quality control when collecting data online, we control for the length of time it took respondents to complete the survey. This is based on our assumption that the time a respondent needs to answer the questionnaire should not affect the focal constructs.

Table 1: Hypothesis linking anthropomorphism to specific brand love dimensions

Brand love	Theoretic mechanisms linking anthropomorphism to brand love						
	HI	H2 H3		H4	H5		
	Category-level evaluation	Cognitive fluency	Cognitive consistency	Close relationships as self-extension	Self-congruence (mediates relationship)		
Positive attitude valence	Hla	_	_	_	_		
Positive emotional connection							
Positive affect while using	_	H2a	_	_	_		
Intuitive fit	_	H2b	_	_	_		
Emotional attachment	_		H3a	_	H5a		
Self-brand integration							
Current self-identity	_			H4	H5e		
Desired self-identity	HIc		_	H4	H5e		
Life meaning and other	_			H4	H5e		
intrinsic rewards							
Frequent thoughts	_			H4	H5e		
Passion-driven behaviors							
Things done in the past	_			_	_		
Passionate desire to use	НІЬ	H2c		_	_		
Willingness to invest resources	_	_	H3d	_	H3d		
Long-term relationship	_	_	НЗЬ	_	НЗЬ		
Anticipated separation distress	_	_	H3c	_	H3c		

# **METHODOLOGY**

# Data collection and sample

An online survey was conducted among German internet users. The link to the questionnaire was spread via social networks, the marketing department's Website, and personal contacts. A lottery of vouchers was provided as incentive. This data collection procedure was chosen in order to address a variety of respondents from different social and demographic groups. As a result, we had 1092 usable questionnaires. Respondents were randomly assigned to one out of four categories (clothing, sport shoes, body care and chocolate). The respondents had an average age of 27.53 years (Standard deviation = 9.39), 42.8 per cent were students and 76.8 per cent were female. A detailed overview of the demographic structure of the respondents is provided in the Appendix A.

#### Measures

If possible, we adopted existing measures from the literature. Seven-item measures were used, scaled from 1 (totally disagree) to 7 (totally agree). All items are listed in the Appendix of this article. All measurement models were assessed using confirmatory factor analyses. These analyses revealed adequate psychometric characteristics (cf., Appendix B for  $\alpha$ , C.R and average variance extracted (AVE) values). Furthermore, the Fornell and Larcker (1981) procedure revealed discriminant validity of the used constructs. This procedure assesses whether the AVE (cf. Appendix A) for every latent reflective construct exceeds the squared correlation of that construct's measure with the measures of all other latent constructs.

Respondents' general brand love tendency was surveyed by asking them to name all brands they 'love' in an open question, and the number of mentioned brands was used as a single indicator (coded by an



independent coder). On average, respondents named 4.95 (Standard deviation = 3.78; median = 4) brands.

Then the general importance of brands in category was measured with three items adopted from Fischer *et al* (2010). This scale ( $\alpha$  = 0.918) covers the importance of and the focus on brands when shopping in the assigned category.

To establish a focal brand that the respondent would answer questions about, respondents were asked to name their favorite brand within their randomly assigned category. This brand was displayed in all further brand-related questions such as brand quality, brand love, self-congruence and brand anthropomorphism.

Brand quality ( $\alpha = 0.877$ ) was measured with two items (brand is associated with good quality, the brand's products are well made). Brand love was measured using a 28-item scale from Bagozzi *et al* (2013), that is a reduced version of the Batra *et al* (2012) measure. This 28-item scale uses two items to measure each dimension or subdimension of brand love, and eliminates the dimension called attitude strength II because of poor statistical performance, as discussed in the theory section. The scale ( $\alpha = 0.934$ ) and all of its subdimensions have a high reliability (see Table 3).

The mediating variable, actual self-congruence ( $\alpha = 0.891$ ), was measured based on Malär *et als'* (2011) conceptualization with two items.

Anthropomorphism of the brand was measured with three items derived from Kim and McGill (2011) and Hart *et al* (2013). Again, this scale shows a high reliability ( $\alpha = 0.922$ ).

Finally, socio-demographic variables were surveyed.

#### Tests for common method bias

As we rely on self-report measures, our results might be threatened by common

method variance (CMV) (Podsakoff et al, 2003). To assess the magnitude of this potential threat, we conducted several tests that are common in the marketing literature. First, we conducted a Harman's single factor test. Therefore, one large factor with all manifest variables in our study was conducted and compared with a multifactor model as used in the study (Podsakoff et al, 2003). The  $\chi^2$  value of the basic model is 975.06 (DF = 116). The single factor test revealed a significantly worse model fit  $(\chi^2 = 6160.21; DF =$ 119;  $\Delta \chi^2 = 5185.15$ ,  $\Delta DF = 3$ ; P < 0.001), indicating no substantial treat because of CMV.

Second, we surveyed a theoretically unrelated marker variable and corrected the correlation matrix of our variables (Malhotra et al, 2006). At the end of the questionnaire, respondents were asked to think about a friend from childhood and name how sporty this friend was. We chose a friend from the childhood, as we could not see a theoretical link between former friends' preference of sports and any focal constructs to our studied categories. We chose the correlation between this variable and brand love (r=0.039,P = 0.196) to correct the correlation matrix. As neither the direction, nor the statistical significance of the correlations changed, the marker variable indicated the absence of CMV in our sample (Podsakoff et al, 2003).

#### Test for multicollinearity

Multiple regression analyses were used to test the hypothesized effects. We checked for potential multicollinearity concerns using variance inflation factor (VIF) test. As all VIF values were below the threshold of 10 (all VIF < 1.110), suggesting no substantial threat by multicollinearity.

Table 2: Results from regression analyses

	Dependent variable	Brand love as a whole ( $\alpha = 0.934$ )
Control variables	Gender	0.049*
	Age	0.092***
	Importance of brands	0.178***
	Brand love tendency	0.055*
	Answering duration	0.03 I <sup>n.s.</sup>
H6: Anthropomorphism		0.487***
H8: Quality		0.116***
R <sup>2</sup> (whole model) Additional analyses <sup>a</sup> :		0.347***
$\Delta R^2$ (quality) <sup>a</sup>		0.012***
$\Delta R^2$ (anthropomorphism) <sup>a</sup>		0.225***

<sup>a</sup>A three-step procedure was applied to compare the importance of anthropomorphism and brand quality in predicting brand love: (i) we estimated the regression analysis with all control variables and anthropomorphism, but not with brand quality. (ii) we then estimated a regression analyses with all control variables and quality, but not with brand anthropomorphism. (iii) we estimated a third equation with all control variables, brand quality and brand anthropomorphism, resulting in an  $R^2$  of 34.7 per cent. We compared this effect with the  $R^2$  from (i) and (ii). The results of this comparison suggest that the inclusion of brand quality leads to an increase in the amount of brand love's variance of  $\Delta R^2 = 1.2$  per cent (P < 0.001), whereas the inclusion of brand anthropomorphism enhances the predictive power much more ( $\Delta R^2 = 22.5$  per cent, P < 0.001). Note: Standardized  $\beta$  coefficients. \*P < 0.05; \*\*\*\*P < 0.001.

#### Test for stability and sample bias

As females are overrepresented in our sample, we checked the direct and the moderating effects of gender. No stable gender effects were found. Furthermore, the control variable answering duration was, as expected, not significantly related to brand love (Table 2).

Owing to the space restrictions of this journal, we only report the results for the combined sample across the four product categories. Additional analyses revealed that the results are stable between product categories.

#### RESULTS

Multiple regression analyses were used to test the hypothesized relationships. The standardized  $\beta$  coefficients are presented in Table 2 for brand love as a whole. Table 3, however, presents the results from the hypotheses that focus on particular (sub-) dimensions of brand love. For reasons of clarity, we only present the  $\beta$  values for

anthropomorphism and brand quality, as the observed patterns among the control variables were the same in all regression analyses.

#### Hypotheses testing

Our hypotheses are organized around the five mechanisms that link anthropomorphism on brand love.

The psychological mechanism underlying Hypothesis 1 is category-level evaluation. As anthropomorphism puts brands into the human category, and humans are generally highly valued, anthropomorphism should lead to improved brand evaluation. The results show that anthropomorphism was positively related to (i) positive attitude valence ( $\beta$ =0.107; P<0.001), (ii) passionate desire to use ( $\beta$ =0.314; P<0.001) and (iii) desired selfidentity ( $\beta$ =0.398; P<0.001). Hence Hypothesis 1 is supported.

The psychological mechanism underlying Hypothesis 2 is that anthropomorphic

Table 3: Regression analyses with brand love dimensions as dependent variables

Brand love	Hypotheses	Support	$\beta_{Anthro}$	$\beta_{\textit{Quality}}$	No CI Overlap <sup>a</sup>
Positive attitude valence	HIa	<b>√</b>	0.107***	0.511***	
Positive emotional connection					
Intuitive fit			0.391***	0.176***	×
Positive affect while using	H2a	✓	0.474***	n.s.	✓
Emotional attachment	H3a	✓	0.407***	n.s.	✓
Positive emotional connection as a whole			0.507***	0.096***	✓
Self-brand integration					
Current self-identity	H4	✓	0.379***	0.061*	✓
Desired self-identity	HIc, H4	✓	0.398***	n.s.	✓
Life meaning and other intrinsic rewards	H4	✓	0.334***	0.060*	✓
Frequent thoughts	H4	✓	0.357***	n.s.	✓
Self-brand integration as a whole	H4	✓	0.452***	n.s.	✓
Passion-driven behaviors					
Things done in the past			0.145***	0.133***	×
Passionate desire to use	H1b, H2b	✓	0.314***	0.158***	×
Willingness to invest resources	H3d	✓	0.259***	n.s.	✓
Passion-driven behaviors as a whole			0.326***	0.161***	✓
Long-term relationship	H3b	✓	0.317***	0.196***	×
Anticipated separation distress	H3c	✓	0.318***	n.s.	✓
Brand love as a whole	H6, H8	✓	0.487***	0.116***	✓

<sup>&</sup>lt;sup>a</sup>To test the difference between the effect of quality and anthropomorphism, the 0.95 confidence intervals were calculated. ✓ describes situations in which both 0.95 Cls of anthropomorphism and brand love do not overlap.

thinking increases *cognitive fluency* thus making the experience of thinking about the brand more pleasant and more intuitive. Anthropomorphism was found to be significantly related to (i) positive affect ( $\beta$ =0.474; P<0.001), (ii) intuitive fit ( $\beta$ =0.391; P<0.001) and (iii) passionate desire to use ( $\beta$ =0.314; P<0.001). Hence, the results support Hypothesis 2.

The psychological mechanism underlying Hypothesis 3 is that anthropomorphic thinking leads consumers to see brands as more plausible relationship partners, thus increasing cognitive consistency with brand love. The results show that anthropomorphism is positively related to (i) emotional attachment ( $\beta$ =0.407; P<0.001), (ii) long-term relationship ( $\beta$ =0.317; P<0.001), (iii) anticipated separation distress ( $\beta$ =0.318; P<0.001) and (iv) long-term relationship

( $\beta$ =0.317; P<0.001). Hence Hypothesis 3 is supported.

Hypothesis 4 builds on Hypothesis 3. Whereas anthropomorphic thinking leads to closer consumer—brand relationships, and whereas close relationships occur in large part through integrating the other into one's self-identity, anthropomorphic thinking should lead to more self-brand integration. Results found a positive relationship between anthropomorphism and the brand love dimension self-brand integration ( $\beta$ =0.453; P<0.001). Additional analyses revealed that this effect holds for all sub-dimensions (all  $\beta$ s>0.334; all P values<0.001; c.f., Table 3). Hence Hypothesis 4 is supported.

Hypothesis 5 builds on Hypotheses 3 and 4 and hypothesized a mediating effect of self-congruence in the relationship between anthropomorphism and brand love<sup>3</sup>.

Theoretical rationales: H1: Category-level evaluations; H2: Cognitive fluency; H3: Cognitive consistency; c.f., Table 1. Note: Standardized values presented only; all regression analyses included the control variables; the results of the control variables are not presented because of reasons of clarity. The effects from the control variables were found to be quite equal in all regression equations.

<sup>\*</sup>P < 0.05: \*\*\*P < 0.001.

Table 4: The mediating effects of self-congruence

Dependent variable	Brand love as a whole	Emotional attachment	Long-term relationship	Anticipated separation distress	Willingness to invest resources	Self-brand integration
	(H7)	(H5a)	(H5b)	(H5c)	(H5d)	(H5e)
I: Independent variable: Bra	and love (and cont	rols)				
b1 Anthropomorphism	0.307***	0.366***	0.306***	0.273***	0.201***	0.312***
II: Independent variables: B	rand love and self	-congruence (ai	nd controls)			
b2 Anthropomorphism	0.197***	0.232***	0.170***	0.169***	0.124***	0.189***
b3 Self-congruence	0.251***	0.305***	0.309***	0.236***	0.176***	0.278***
Sobel test (indirect effects)	0.111***	0.135***	0.137***	0.105***	0.077***	0.123***
Bootstrap 99% CI does not include zero	Yes	Yes	Yes	Yes	Yes	Yes
Mediation	✓	✓	✓	✓	✓	✓

<sup>\*\*\*</sup>P < 0.001.

Note: The results reported here differ from those reported in Tables 2 and 3. This is because we used the *unstandardized* regression coefficients for the mediation analyses using PROCESS (Hayes 2013).

The unstandardized b-value of anthropomorphism on self-congruence is b = 0.440, P < 0.001, after controlling for all control variables. As this effect is redundant in all equations, it is not reported above. Unstandardized coefficients presented only, after controlling for the aforementioned six control variables.

We tested this hypothesis by applying both the Baron and Kenny (1986) procedure, an established methodology in the marketing literature and the newer Preacher and Hayes (2008) bootstrap test.

According to Baron and Kenny (1986), mediation requires a positive relationship between the independent variable and the mediator, which is in our case between anthropomorphism and self-congruence  $(\beta = 0.440; P < 0.001)$ . Second, mediation requires a significant relationship between the independent variable and the dependent variable in a regression equation that includes the independent variable (and the control variables), but not the mediator. This requirement is met, as reflected by empirical support for the previous hypotheses. Third, when the mediator is included in the regression equation, the effect of the independent variable should become insignificant (full mediation) or it should at least decrease (partial mediation), while the mediator is significantly related to the independent variable. These results have been found among all hypothesized mediation effects (see Table 4; (I) versus (II)). Furthermore, in line with

Hypothesis 5, the SOBEL-test identified significant indirect effects (see Table 4) for (i) emotional attachment ( $\beta_{\rm ind} = 0.135$ ; P < 0.001), (ii) long-term relationship ( $\beta_{\rm ind} = 0.137$ ; P < 0.001), anticipated separation distress ( $\beta_{\rm ind} = 0.1105$ ; P < 0.001), willingness to invest resources ( $\beta_{\rm ind} = 0.077$ ; P < 0.001) and self-brand integration ( $\beta_{\rm ind} = 0.123$ ; P < 0.001).

As recent research in the literature on mediation analyses has highlighted several concerns of the Baron and Kenny (1986) procedure (for example, Hayes, 2013; Preacher and Hayes, 2008; Zhao et al, 2010), we replicated the analyses following the recommendations of Preacher and Hayes (2008). Therefore, we applied the PROCESS procedure (Hayes, 2013) and tested the mediation using a bootstrapping technique based on each 10 000 resamples. Zhao et al (2010) argue that an indirect effect is significant and mediation is established if the bootstrap confidence interval does not include zero. As none of the 99 per cent confidence intervals of the indirect effects included zero (c.f., Table 4), we receive additional support for Hypothesis 5.



As we have argued that even a change in a single brand love dimension should affect brand love as a whole, we extended the finding hypothesized in the previous hypotheses on brand love as a whole.

In Hypothesis 6, we present an overarching hypothesis for the relationships hypothesized in Hypotheses 1, 2, 3 and 4. That is, anthropomorphism should not only be related to the selected dimensions, but also to brand love as a whole. In line with Hypothesis 6, we identified a positive relationship between anthropomorphism and brand love ( $\beta = 0.487$ , P < 0.001), as reported in Table 1. In addition, we conducted two stepwise regression analyses to assess the explanatory power ( $\Delta R^2$ ) of anthropomorphism and brand quality. As shown in Table 2 (and methodologically discussed in its footnote), anthropomorphism explains about 22.5 per cent of the variance in brand love, whereas quality explains only 1.2 per cent. A discussion of these additional findings will be provided later.

Using the same rationale, we hypothesize in Hypothesis 7 that the mediating effects hypothesis 7 that the mediating effects hypothesized in Hypothesis 5 should also be valid for brand love as a whole. The results both of the Baron and Kenny (1986) and the Preacher and Hayes (2008) procedure revealed the mediating effect, as shown in Table 4 ( $\beta_{\text{ind}} = 0.111$ ; P < 0.001; no. 95-CI overlap).

Hypothesis 8 postulates that brand quality should be positively related to brand love, by replicating Batra *et al* (2012). The data supports Hypothesis 8 ( $\beta$ =0.116, P<0.001; c.f. Table 3).

Hypothesis 9 stated that (i) brand quality should outperform anthropomorphism in predicting brand quality, and (ii) vice versa, that anthropomorphism should outperform brand quality in predicting the other hypothesized brand love dimensions. To assess this, we compared the  $\beta$  values for the impact of brand quality and anthropomorphism on the various brand love dimensions, and

estimated the 95 per cent confidence intervals for those  $\beta$  values. If the confidence intervals did not overlap, we considered this to be good evidence of an important difference existing between the  $\beta$ s. In line with our theorizing, no overlaps were identified in the regression equation predicting attitude valence, supporting Hypothesis 9a (c.f. Table 3; row 'No CI overlap').

As hypothesized in H9b, anthropomorphism's beta-coefficients on the other dimensions of brand love are all higher than the beta coefficients of brand quality. However, although the effects are in the hypothesized direction, the inspection of the confidence interval overlaps reveals only partial support.

# **DISCUSSION**

To the best of our knowledge, this study provides the first data demonstrating a relationship between anthropomorphism and brand love, and finds this relationship to be quite strong among consumers who are positively disposed towards the brand. In particular, perceived quality is an important predictor of brand love, and yet we found that anthropomorphism dramatically outperformed perceived quality in explaining variance in brand love for consumers' favorite brands. Specifically, anthropomorphism explained about 23 per cent of brand love's variance, whereas brand quality was only found to explain about 1.2 per cent.

How can this low  $(1.2 \text{ per cent}) R^2$  figure be reconciled with the fact that quality, indisputably, matters to consumers? It is important to recall that this study is set in the context of defensive marketing strategy. Methodologically, respondents were asked to name a favorite brand in a given product category, and then answered questions about that brand. From a managerial perspective this is vitally important information, because in the real world consumers generally choose between their favorite brands. However, most consumers feel that

the quality level of their favorite brands is very high, thus contributing to the low  $R^2$  figure for the effect of quality on brand love. This is consistent with findings that perceived quality is an important but not sufficient antecedent to brand love (Ahuvia, 1993; Batra *et al*, 2012).

Building upon prior research, five theoretical mechanisms where presented that could link anthropomorphism to brand love: (i) category-level evaluation, (ii) cognitive fluency, (iii) cognitive consistency, (iv) self-extension and (v) selfcongruence. Category-level evaluation refers to the fact that when brands that are categorized as being people, they are usually evaluated more favorably. In line with our theorizing, we identified a positive relationship between anthropomorphism and attitude valence, desired self-identity and passionate desire to use. Anthropomorphism also increases cognitive fluency (Delbaere et al, 2011), which makes consumers feel better when thinking about the brand and motivates them to use products or brands more intensively - aspects of the positive emotional attachment and passion-driven behavior dimensions of brand love. Cognitive consistency refers to the fact that consumers' minds like consistent and plausible information. When consumers anthropomorphize brands, the brands become more plausible relationship partners, and hence more lovable (and more loved). Related to that, self-extension is another mechanism that links anthropomorphism to brand love. Anthropomorphic thinking leads to stronger consumer-brand relationships, which in turn leads to greater integration of the brand into the consumer's self-identity. Another analogy between consumer-brand relationships and interpersonal relationships was found self-congruence. Although research has shown that self-congruence makes people more attached to brands (Malär et al, 2011), our study has shown

that anthropomorphism makes consumerbrand relationships more like interpersonal relationships, which in turn makes selfcongruence a more important determinant of brand love. That is, our findings on *selfcongruence* showed that consumers love brands more when they see the brand not just as a person, but also as a person like themselves.

Our study lends support to the basic theoretical premise that consumer-brand relationships, such as brand love, are in some sense analogous to, or modeled on, interpersonal relationships. Furthermore, brand love includes the dimension of positive attitude valence that is based on evaluative judgments. A high level of positive attitude valence is a form of liking a brand. The differences between the more relational brand love dimensions (as hypothesized in Hypotheses 2, 3, 4 and 5) and the more evaluation-based dimension of attitude valence, illustrate that brand love is not simply liking a brand very much. People with a strong love towards a brand usually also like it, but people can like a brand without strongly loving it. One reason for this is that people might value the functional quality of the brand, but not anthropomorphize it.

From a managerial perspective, our findings suggest that marketers who would like to increase brand love should consider humanizing their brands. One of the benefits of measuring brand love as a multidimensional construct, as opposed to using a single overall measure (for example, Carroll and Ahuvia, 2006), is that multidimensional measures allow managers to diagnose problem areas. For example, for any given brand, positive attitude valance might be strong, whereas self-brand integration was weak, or vice versa. However, this type of diagnosis is only valuable if managers can do things to differentially influence the various brand love dimensions. In that regard, finding that anthropomorphism primarily has its impact on the more relationship focused



aspects of brand love, whereas perceived quality has a relatively strong influence on positive attitude valence, can help brand managers tailor their response to their specific situation.

We identified four promising ways to increase the level of perceived anthropomorphism of brands, some of which have extent research support and the rest of which serve as suggestions for future work:

- 1. Communicate in the first person: It is likely that first-person slogans such as 'Hello, I am the brand X' will increase anthropomorphism, whereas third-person claims do not (Aggarwal and McGill, 2007). These finding may have influenced marketers for Lindt chocolates, who recently launched a new line of chocolates with packaging that talks in the first person (for example, 'Hello, my name is Nougat Crunch').
- 2. Use of stimuli that imitate human characteristics: This approach is already widely used in the auto industry, where manufacturers often imitate a human face when designing the front of a car. Logos, or pictures of the product in advertising, can also reference human characteristics, or be pictured engaging in human activities (Delbaere et al, 2011). Some brands, such as 'Ralph Lauren' or 'Mr. Proper' consist of real or fictitious human names.
- 3. Create a strong brand personality: One potential way to do that is to use testimonials or celebrity spokespeople, whose personality may spill over onto the brand. When doing this, the brand personality should be congruent with the target market (Sirgy, 1982; Malär et al, 2011).
- 4. *Interact through social media*: A brand can launch a brand page on Facebook, and thus directly converse with users. Posting and discussing 'as a brand' with consumers (and not, for example, as a sales representative) might be another way of increasing anthropomorphism.

The current study, of course, has its limitations. Our results are based on a German online sample with younger consumers and females being overrepresented. However, controlling for direct and moderating effects of demographic variables indicated that this potential limitation does not affect our results. Furthermore, we did not study products with a high financial risk (for example, car brands), complex interactive technology (for example, computers), low involvement products (for example, sugar) or services (for example, restaurants).

Future studies should also focus on the social aspects of brand love and investigate more precisely how, when and why these social motivations influence consumer behavior. For example, are lonely people more likely to anthropomorphize brands? If yes, to what extent do consumer—brand relationships actually relieve loneliness? To what extent are consumer—brand relationships a substitute for interpersonal relationships or a strategy to create interpersonal relationships with others who share an interest in the brand?

In conclusion, our findings show that anthropomorphism can be a powerful antecedent to brand love. Our findings also support the important role of the social aspect of consumer—brand relationships in producing brand love.

#### **ACKNOWLEDGEMENTS**

We gratefully acknowledge the help of Charlotte Baumann and Natalia Broza in collecting data for this study. The authors furthermore thank the two guest editors and the anonymous reviewers from the *Journal of Brand Management* for their insightful and constructive comments and feedback.

#### NOTES

- 1 In previous studies this has been called "attitude strength 1".
- 2 In previous studies this has been called "attitude strength 2".

3 One reviewer suggested that the relationship could also be moderated (rather than mediated) by self-congruence. We tested this assumption using the interaction-probing procedure as recommended by Aiken and West (1991). No significant interaction effect could be identified.

#### REFERENCES

- Aaker, J.L. (1997) Dimensions of brand personality. *Journal of Marketing Research* 34(3): 347–356.
- Aggarwal, P. and McGill, A.L. (2007) Is that car smiling at me? Schema congruity as a basis for evaluating anthropomorphized products. *Journal of Consumer Research* 34(4): 468–479.
- Ahuvia, A.C. (1992) For the love of money: Materialism and product love. In: F. Rudman and M.L. Richins (eds.) Meaning, Measure, and Morality of Materialism. Provo, UT: The Association for Consumer Research, pp. 188–198.
- Ahuvia, A.C. (1993) I love it! Towards a unifying theory of love across diverse love objects. PhD Dissertation, Northwestern University. UMI Dissertation Services, Ann Arbor, MI.
- Ahuvia, A.C. (2008) Commentary on exploring the dark side of pet ownership: Status- and control-based pet consumption. A reinterpretation of the data. *Journal* of Business Research 61(5): 497–499.
- Ahuvia, A.C., Bagozzi, R.P. and Batra, R. (2013) Psychometric vs. C-OAR-SE measures of brand love: A reply to Rossiter. *Marketing Letters* 1–9.
- Ahuvia, A.C., Batra, R. and Bagozzi, R.P. (2009) Love, desire and identity: A conditional integration theory of the love of things. In: D.J. MacInnis, C.W. Park and J.R. Priester (eds.) *The Handbook of Brand Relationships*. New York: M.E.Sharpe, pp. 342–357.
- Aiken, L.S. and West, S.G. (1991) Multiple Regression: Testing and Interpreting Interactions. Newbury Park, CA: Sage Publications.
- Albert, N. and Merunka, D. (2013) The role of brand love in consumer-brand relationships. *Journal of Consumer Marketing* 30(3): 258–266.
- Albert, N., Merunka, D. and Valette-Florence, P. (2008) When consumers love their brands: Exploring the concept and its dimensions. *Journal of Business Research* 61(10): 1062–1075.
- Albert, N., Merunka, D. and Valette-Florence, P. (2012)Brand passion: Antecedents and consequences.Journal of Business Research 66(7): 904–909.
- Aron, A. (2003) Self and close relationships. In: M.R. Leary and J.P. Tangney (eds.) Handbook of Self and Identity (Guilford Press, pp. 442–461.
- Aron, A., Aron, E.N. and Smollan, D. (1992) Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology* 63(4): 596–612.
- Aron, A., Aron, E.N., Tudor, M. and Nelson, G. (1991) Close relationships as including other in the self. *Journal of Personality and Social Psychology* 60(2): 241–253.
- Aron, A. and Fraley, B. (1999) Relationship closeness as including other in the self: Cognitive under-

- pinnings and measures. *Social Cognition* 17(2): 140–160.
- Aron, E.N. and Aron, A. (1996) Love and expansion of the self: The state of the model. *Personal Relationships* 3(1): 45–58.
- Awa, H. and Nwuche, C. (2010) Cognitive consistency in purchase behaviour: Theoretical & empirical analyses. *International Journal of Psychological Studies* 2(1): 44–54.
- Bagozzi, R.P., Batra, R. and Ahuvia, A.C. (2013) Brand love: Development of an operational scale and answers to unaddressed questions. Working Paper. Ann Arbor, MI.
- Baron, R.M. and Kenny, D.A. (1986) The moderatormediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology* 51(6): 1173–1182.
- Bartels, A. and Zeki, S. (2004) The neural correlates of maternal and romantic love. *NeuroImage* 21(3): 1155–1166.
- Batra, R., Ahuvia, A.C. and Bagozzi, R.P. (2012) Brand love. *Journal of Marketing* 76: 1–16.
- Bauer, H., Heinrich, D. and Albrecht, C.-M. (2009) All you need is love: Assessing consumers' brand love. In: M. Kamin and I.M. Martin (eds.) Proceedings of the American Marketing Association Summer Educators Conference. Chicago, IL: American Marketing Association, pp. 252–253.
- Bauer, H., Heinrich, D. and Martin, I. (2007) How to create high emotional consumer-brand relationships?
  The causalities of brand passion. In: M. Thyne, K. Deans and J.P. Gnoth (eds.) Proceedings of the Australian & New Zealand Marketing Academy Conference, Dunedin, New Zealand, pp. 2189–2198.
- Belke, B., Leder, H., Strobach, T. and Carbon, C.C. (2010) Cognitive fluency: High-level processing dynamics in art appreciation. *Psychology of Aesthetics*, *Creativity, and the Arts* 4(4): 214–222.
- Bergkvist, L. and Bech-Larsen, T. (2010) Two studies of consequences and actionable antecedents of brand love. *Journal of Brand Management* 17(7): 504–518.
- Buber, M. (2010) I and Thou. Eastford, CT: Martino Fine Books.
- Buss, D.M. (1988) Love acts: The evolutionary biology of love. In: R.J. Sternberg and J.H. Barnes (eds.) *The Psychology of Love*. New Haven, CT: Yale University Press, pp. 264–289.
- Carroll, B.A. and Ahuvia, A.C. (2006) Some antecedents and outcomes of brand love. *Marketing Letters* 17(2): 79–89.
- Chandler, J. and Schwarz, N. (2010) Use does not wear ragged the fabric of friendship: Thinking of objects as alive makes people less willing to replace them. *Journal of Consumer Psychology* 20(2): 138–145.
- Crandall, C.S., Silvia, P.J., N'Gbala, A.N., Tsang, J.-A. and Dawson, K. (2007) Balance theory, unit relations, and attribution: The underlying integrity of Heiderian theory. *Review of General Psychology* 11(1): 12–30.



- Delbaere, M., McQuarrie, E.F. and Phillips, B.J. (2011) Personification in advertising: Using a visual metaphor to trigger anthropomorphism. *Journal of Advertising* 40(1): 121–130.
- Epley, N., Waytz, A., Akalis, S. and Cacioppo, J.T. (2008) When we need a human: Motivational determinants of anthropomorphism. *Social Cognition* 26(2): 143–155.
- Epley, N., Waytz, A. and Cacioppo, J.T. (2007) On seeing human: A three-factor theory of anthropomorphism. *Psychological review* 114(4): 864–886.
- Fehr, B. and Russell, J.A. (1991) The concept of love viewed from a prototype perspective. *Journal of Personality and Social Psychology* 60(3): 425–438.
- Festinger, L. (1957) A Theory of Cognitive Dissonance. Standford, CA: Stanford University Press.
- Fetscherin, M., Boulanger, M., Gonçalves Filho, C. and Souki, G.Q. (2014) The effect of product category on consumer brand relationships. *Journal of Product and Brand Management* 23(2): 1–31.
- Fischer, M., Völckner, F. and Sattler, H. (2010) How important are brands? A cross-category, crosscountry study. *Journal of Marketing Research* 47(5): 823–839.
- Fornell, C. and Larcker, D.A. (1981) Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18(1): 39–50.
- Fornell, C. and Wernerfelt, B. (1987) Defensive marketing strategy by customer complaint management: A theoretical analysis. *Journal of Marketing Research* 24(4): 337–346.
- Fournier, S. (1998) Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research* 24(4): 343–353.
- Fournier, S. and Yao, J.L. (1997) Reviving brand loyalty: A reconceptualization with the framework of consumer-brand relationships. *International Journal of Research in Marketing* 14(5): 451–472.
- Grisaffe, D.B. and Nguyen, H.P. (2011) Antecedents of emotional attachment to brands. *Journal of Business Research* 64(10): 1052–1059.
- Guese, K. (2010) Consumer-brand relationships: A stateof-the-art review and future research directions. Bamberg, Working Paper no. 006, Germany: Marketing Department, Otto-Friedrich University.
- Hart, P.M., Jones, S.R. and Royne, M.B. (2013) The human lens: How unprimed anthropomorphic reasoning varies by product complexity and enhances personal value. *Journal of Marketing Management* 29(1–2): 105–121.
- Hayes, A.F. (2013) Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach. New York: The Guilford Press.
- Heinrich, D., Albrecht, C.-M. and Bauer, H.H. (2012) Love actually? Measuring and exploring consumers' brand love. In: S. Fournier, M. Breazeale and M. Fetscherin (eds.) Consumer-Brand Relationships – Theory and Practice. London: Routledge, pp. 137–150.

- Herz, M.F. and Diamantopoulos, A. (2013) Activation of country stereotypes: Automaticity, consonance, and impact. *Journal of the Academy of Marketing Science* 41(4): 400–417.
- Higgins, E.T. (1987) Self-discrepancy: A theory relating self and affect. *Psychological Review* 94(3): 319–340.
- Johnson, A.R., Matear, M. and Thomson, M. (2011) A coal in the heart: Self-relevance as a post-exit predictor of consumer anti-brand actions. The Journal of Consumer Research 38(1): 108–125.
- Kahneman, D. (2011) Thinking, Fast and Slow, 1st edn. New York: Farrar. Straus and Giroux.
- Kervyn, N., Fiske, S.T. and Malone, C. (2012) Brands as intentional agents framework: How perceived intentions and ability can map brand perception. *Journal of Consumer Psychology* 22(2): 166–176.
- Kiesler, S. and Goetz, J. (2002) Mental models and cooperation with robotic assistants, Proceedings of Conference on Human Factors in Computing Systems, Minneapolis: ACM, pp. 576–577.
- Kiesler, T. (2006) Anthropomorphism and consumer behavior. Advances in Consumer Research 33(1): 149.
- Kim, S. and McGill, A.L. (2011) Gaming with Mr Slot or gaming the slot machine? Power, anthropomorphism, and risk perception. The Journal of Consumer Research 38(1): 94–107.
- Landwehr, J.R., McGill, A.L. and Herrmann, A. (2011) It's got the look: The effect of friendly and aggressive 'Facial' expressions on product liking and sales. *Journal of Marketing* 75(3): 132–146.
- Lastovicka, J.L. and Sirianni, N.J. (2011) Truly, madly, deeply: Consumers in the throes of material possession love. The Journal of Consumer Research 38(2): 323–342.
- Levine, M. (2009) Share my ride. New York Times Magazine, March, p. 36.
- Lewandowski, G.W., Aron, A., Bassis, S. and Kunak, J. (2006) Losing a self-expanding relationship: Implications for the self-concept. *Personal Relationships* 13(3): 317–331.
- Loureiro, S.M.C. and Kaufmann, H.R. (2012) Explaining love of wine brands. *Journal of Promotion Management* 18(3): 329–343.
- Malhotra, N.K., Kim, S.S. and Patil, A. (2006) Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science* 52(12): 1865–1883.
- Malär, L., Krohmer, H., Hoyer, W.D. and Nyffenegger, B. (2011) Emotional brand attachment and brand personality: The relative importance of the actual and the ideal self. *Journal of Marketing* 75(4): 35–52.
- Marston, P.J., Hecht, M.L. and Roberts, T. (1987) True love ways: The subjective experience and communication of romantic love. *Journal of Social* and Personal Relationships 4: 387–407.
- McPherson, M., Smith-Lovin, L. and Cook, J.M. (2001) Birds of a feather: Homophily in social network. *Annual Review of Sociology* 27(1): 415–444.

- Murstein, B.I. (1988) A taxonomy of love. In: R.J. Sternberg and M.L. Barnes (eds.) The Psychology of Love. New Haven: Yale University Press, pp. 13–37.
- Nordhielm, C. (2006) Marketing Management: The Big Picture. Hoboken, NJ: John Wiley & Sons.
- Ortiz, M.H. and Harrison, M.P. (2011) Crazy little thing called love: A consumer-retailer relationship. *Journal* of Marketing Development & Competitiveness 5(3): 68–81.
- Ortony, A., Clore, G.L. and Collins, L. (1988)

  The Cognitive Structure of Emotions. New York:

  Cambridge University Press.
- Park, C.W., MacInnis, D.J. and Prieser, J. (2006) Brand attachment: Constructs, consequences, and causes. Foundations and Trends<sup>®</sup> in Marketing 1(3): 191–230.
- Pieters, R. (2013) Bidirectional dynamics of materialism and loneliness: Not just a vicious cycle. *Journal of Consumer Research* 40(4): 615–631.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5): 879–903.
- Preacher, K.J. and Hayes, A.F. (2008) Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator model. *Behavior Research Methods* 40(3): 879–891.
- Puzakova, M., Kwak, H. and Rocerto, J.F. (2013) When humanizing brands goes wrong: The detrimental role of brand anthropomorphization amidst product wrongdoings. *Journal of Marketing* 77(3): 81–100.
- Rauschnabel, P.A., Ahuvia, A., Ivens, B.S. and Leischnig, A. (2013) Who loves brands? Exploring the relationships between personality, interpersonal love, and brand love. In: *Proceedings of the 42nd EMAC Conference*, European Marketing Academy (EMAC), Istanbul, Turkey.
- Rauschnabel, P.A., Ahuvia, A.C., Ivens, B.S. and
   Leischnig, A. (2015) The personality of brand lovers.
   In: M. Fetscherin and T.N. Heilmann (eds) Consumer-Brand Relationships, 2nd edn, Palgrave, forthcoming.
- Reimann, M. and Aron, A. (2009a) Self-expansion motivation and inclusion of brands in self: Toward a theory of brand relationships. In: D.J. MacInnis, C.W. Park and J.R. Priester (eds.) *Handbook of Brand Relationships*. New York: M.E. Sharpe, pp. 65–81.
- Reimann, M. and Aron, A. (2009b) Self-expansion motivation and inclusion of brands in self. Handbook of brand relationships. Society for Consumer Psychology 65–83.

- Reimann, M., Castaño, R., Zaichkowsky, J. and Bechara, A. (2012) How we relate to brands: Psychological and neurophysiological insights into consumer–brand relationships. *Journal of Consumer Psychology* 22(1): 128–142.
- Richins, M.L. and Dawson, S. (1992) A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research* 19(3): 303–316.
- Shimp, T.A. and Madden, T.J. (1988) Consumer-object relations: A conceptual framework based analogously on Stemberg's triangular theory of love. Advances in Consumer Research 15(1): 163–168.
- Sirgy, M.J. (1982) Self-concept in consumer behavior: A critical review. *Journal of Consumer Research* 9(3): 287–300.
- Sundar, S.S. (2004) Loyalty to computer terminals: Is it anthropomorphism or consistency? Behaviour & Information Technology 23(2): 107–118.
- Vlachos, P.A. and Vrechopoulos, A.P. (2012) Consumer-retailer love and attachment: Antecedents and personality moderators. *Journal of Retailing and Consumer Services* 19(2): 218–228.
- Waytz, A., Cacioppo, J.T. and Epley, N. (2010a) Who sees human?: The stability and importance of individual differences in anthropomorphism. Perspectives on Psychological Science 5(3): 219–232.
- Waytz, A., Epley, N. and Cacioppo, J.T. (2010b) Social cognition unbound: Insights into anthropomorphism and dehumanization. Current Directions in Psychological Science 19(1): 58–62.
- Waytz, A., Morewedge, C.K., Epley, N., Monteleone, G., Gao, J.-H. and Cacioppo, J.T. (2010) Making sense by making sentient: Effectance motivation increases anthropomorphism. *Journal of Personality* and Social Psychology 99(3): 410–435.
- Wheeler, S.C. and Petty, R.E. (2001) The effects of stereotype activation on behavior: A review of possible mechanisms. *Psychological Bulletin* 127(6): 797–826.
- Willard, A.K. and Norenzayan, A. (2013) Cognitive biases explain religious belief, paranormal belief, and belief in life's purpose. *Cognition* 129(2): 379–391
- Zhao, X., John Jr G.L. and Chen, Q. (2010) Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research* 37(2): 197–206.



# **APPENDIX A**

Table A1: Demographics

Gender			
Male	253 (23.2%)		
Female	839 (76.8%)		
Age (years)			
Mean (Standard deviation)	27.53 (Standard		
	deviation = 9.39		
<b>≤</b> 20	250 (22.9%)		
21–30	549 (50.3%)		
31 <del>-4</del> 0	172 (15.8%)		
41–50	86 (7.9%)		
51–60	30 (2.8%)		
60 and older	5 (0.5%)		
Job			
Pupil	72 (6.6%)		
Student	466 (42.7%)		
Employed	389 (32.1%)		
Employed in a leading position	45 (4.1%)		
Civil worker	30 (2.7%)		
Self-employed	37 (3.4%)		
unemployed	21 (1.9%)		
Other	70 (7.8%)		
Income			
< 500€	158 (14.5%)		
500–999	191 (17.5%)		
1000-1999	200 (18.3%)		
2000–2999	185 (16.9%)		
3000–3999	123 (11.3%)		
4000-4999	54 (4.9%)		
5000 and more	41 (3.8%)		
No answer	140 (12.8%)		

Note: To ensure the comparability of the four sub-groups (clothing, sport shoes, body care and chocolate), we compared the sample structures (for example, age, gender and job) between the groups using several F-Tests and  $\chi^2$ -tests. None of the tests identified significant differences (all P-values were above 0.42), indicating the four groups as having a comparable structure.



#### **APPENDIX B**

#### Table BI: Measurement model

```
Brand love (Batra et al, 2012; Bagozzi et al, 2013)
(\gamma^2(283) = 1586.040; P < 0.001; CFI = 0.910; NFI = 0.892; IFI = 0.910; TLI = 0.896; RMSEA = 0.065; \alpha = 0.934)
                                                             Passionate desire to use (\alpha = 0.848; C.R. = 0.848; AVE = 0.736)
Passion-driven behaviors
  (\gamma^2(6) = 13.144; P = 0.042; CFI = 0.997; NFI = 0.994;
                                                                 I feel a sense of longing to use (brand).
  IFI = 0.997; TLI = 0.991; RMSEA = 0.040; \alpha = 0.736)
                                                                 I feeling of wanting to use (brand).
                                                                 Things done in the past (\alpha = 0.670; C.R. = 0.709; AVE = 0.558)
                                                                 I have done a lot of things with it in the past with (brand).
                                                                 I have interacted a lot with (brand) in the past.
                                                                 Willingness to invest resources (\alpha = 0.767; C.R. = 0.773;
                                                                AVE = 0.632)
                                                                 I am willing to spend a lot of money to improve by (brand)-
                                                                products.
                                                                 I am willing to spend a lot of time to improve by (brand)-
                                                                products.
Self-brand integration
                                                              Current Self-Identity (\alpha = 0.781; C.R. = 0.783; AVE = 0.643)
   (\chi^2(16) = 62.634; P < 0.001; CFI = 0.988; NFI = 0.983;
                                                                 The use of brand (brand) says something 'true' and 'deep' about
  IFI = 0.988; TLI = 0.878; RMSEA = 0.052; \alpha = 0.862)
                                                                 (brand) is an important part of how I see myself.
                                                                 Desired self-identity (\alpha = 0.685; C.R. = 0.693; AVE = 0.533)
                                                                 (brand) makes me look how I want to look.
                                                                 (brand) makes me feel how I want to feel.
                                                                 Life meaning and intrinsic rewards (\alpha = 0.754; C.R. = 0.766;
                                                                AVE = 0.620)
                                                                 (brand) makes my life more meaningful.
                                                                 (brand) makes my life worth living.
                                                                 Frequent Thoughts (\alpha = 0.789; C.R. = 0.794; AVE = 0.658)
                                                                 I frequently find myself thinking about (brand).
                                                                 (brand) keeps up popping in my mind.
Positive emotional connection
                                                             Intuitive fit: (\alpha = 0.773; C.R. = 0.750; AVE = 0.600)
  (\chi^2(6) = 18.844; P = 0.004; CFI = 0.995; NFI = 0.992;
                                                                 When I first encountered (brand) it just felt 'right'.
  IFI = 0.995; TLI = 0.987; RMSEA = 0.017; \alpha = 0.839)
                                                                 When I first encountered (brand), I just felt 'Yes, that's what
                                                                I was looking for'.
                                                                 Emotional attachment: (\alpha = 0.745; C.R. = 0.755; AVE = 0.607)
                                                                 I feel emotionally connected with (brand).
                                                                 (brand) feels like an old friend.
                                                                 Positive Affect: (\alpha = 0.739; C.R. = 0.776; AVE = 0.634)
                                                                 (brand) is fun.
                                                                 (brand) is exciting.
Long-term relationship
                                                             I will be using (brand) for a long time.
  (\alpha = 0.752; C.R. = 0.767; AVE = 0.625)
                                                             I expect that (brand) will be a part of my life for a long time.
Anticipated separation distress
                                                             If (brand) would go out of existence, I would feel anxiety.
  (\alpha = 0.785; C.R. = 0.790; AVE = 0.653)
                                                             If (brand) would go out of existence, I would feel apprehension.
Overall attitude valence
                                                              (brand) satisfies my expectations.
  (\alpha = 0.849; C.R. = 0.850; AVE = 0.739)
                                                             I am very satisfied with (brand).
Brand Anthropomorphism
(\alpha = 0.922; C.R. = 0.923; AVE = 0.799)
                                                             To what extend does the brand (brand) and its products seem ...
                                                              ... to have an good, own free will?
                                                              ... to experience positive emotions?
                                                              ... to have an own positive conscious?
Brand quality (Batra, et al, 2012)
(\alpha = 0.877; C.R. = 0.880; AVE = 0.736)
                                                              (brand)'s products are well made.
                                                              (brand)'s products have a good quality.
```

#### Table B1: continued

Importance of brands (Fischer et al, 2010)  $(\alpha = 0.918; C.R. = 0.903; AVE = 0.824)$ When buying (category), I mostly focus on the brand. When I buy (category), it's important for me to buy brands. Compared with other factors, the brand is an important factor when buying (category). Self-congruence (Malar et al, 2011)  $(\alpha = 0.891; C.R. = 0.891; AVE = 0.805)$ Take a moment to think about brand (brand). Describe this person using personality characteristics such as reliable and so on. Now think about how you see yourself (your actual self). What kind of person are you? How would you describe your personality? Once you've done this, indicate your agreement or disagreement to the following statements: The personality of (brand) is consistent with how I see myself. The personality of (brand) is a mirror image of me. Brand love tendency (Single item measure; reliability statistics are not Please name all brands from that you would say: 'I love this brand'. available) Please do not focus on any specific products or services. (Number of brands was counted)