

Attachment to Green Products: A Case Study of Leather Slippers made from Reclaimed Materials

By Alexa Mottram, University of Lincoln

Abstract

Increasing product lifespan is recognised as a way to reduce the consumption of resources and materials that go into producing consumer goods. Increasing the emotional bond an owner feels to their product through encouraging product attachment is a strategy to achieve this. This study focusses on product attachment with green products with the aim to inform product designers that are already seeking greater sustainability through their use of green design principles.

A case study into relationships with one brand of slippers is undertaken through an online survey of seventy-nine slipper owners and three semi-structured interviews with selected survey respondents. Data from the survey is compared with data from an existing 2008 study: [Consumer-Product Attachment: Measurement and Design Implications](#) which investigates owner relationships with four categories of product: jewellery, lamp, clock and car (Schifferstein and Zwartkruis-Pelgrim 2008).

The slippers are found to be a high-attachment product, though this is not predominantly due to their being made from reclaimed materials. Other factors, in particular the fact that each pair is unique, are found to be more influential. Overall a new form of attachment was identified: that of ideological attachment whereby feelings of attachment stem from an alignment to the ideology of a product.

It is suggested that a class of consumer exists that view their possessions within a wider political, environmental and social context and that their feelings of attachment towards an object are affected by this.

Introduction

This paper builds on existing research into product attachment to examine feelings of attachment towards eco products. If a stronger bond is formed with the products we own then this can encourage a greater level of maintenance and repair and a longer life for that product.

Consumer products are now generated in such abundance that they are often wasted having barely been used at all (Chapman 2005; Mugge 2007; Schifferstein and Zwartkruis-Pelgrim 2008). Critics of consumer culture argue that increased materialism is detrimental to society and increases feelings of disappointment and inadequacy (Chapman 2005; Cooper 2010; Soper et al. 2008).

One method to reduce the ecological footprint of a product is to extend its life so that it is replaced less frequently and fewer products are manufactured overall. If a stronger bond could be created between an owner and a possession it is less likely that the possession will be discarded before it is worn out (Cooper 2010; Dodds et al. 2004). Conversely, the weakening of the emotional bond within person-product relationships is a cause of high product turnover and therefore higher resource consumption (Chapman 2005; Cooper 2010; Mugge et al. 2010; Savas 2003).

The lifespan of a product is influenced by different players in various ways throughout its journey from conception to disposal. Designers may build in obsolescence to drive future sales or plan for durability; marketing executives may advertise each latest model on the basis of its desirable 'newness' making the previous one feel obsolete; consumers make decisions about whether to repair, maintain or replace their products (Sudjic 2008).

Context

The experience of owning a product and the relationship that develops between object and user is complex, subjective and shown to change over time (Mugge et al. 2005; Schifferstein and Zwartkruis-Pelgrim 2008). Research into this area spans multiple disciplines and can fall under a number of headings including product experience, brand attachment, product attachment, consumer behaviour, product involvement and emotional bonding with products. Attachment to products involves various emotions, mostly positive (Chapman 2005).

Reasons and nature of attachment vary, as Battarbee and Mattelmäki found through their collection of 113 stories about product attachment: 'What is meaningful to us depends on our life situation. Teddy bears are loved by small children, but for a teenager a mobile phone is a symbol of independence and a tool for contacting friends. Ten years later a baby's pram can be important, and in old age things that remind of family and represent continuation can be meaningful' (Battarbee and Mattelmäki 2003).

Existing research shows that appearance is a significant factor in determining whether a product elicits feelings of attachment or detachment (Mugge et al. 2010). Products which change in appearance over time and show visible signs of their history, for example a pair of denim jeans which fade, are more likely to be high-attachment products (Chapman 2005). Changing the appearance of a product oneself is also a process that can increase the bond felt with that item and this effect increases the more effort is exerted in the personalisation process, for example a skateboard that is painted with an intricate design by the owner (Mugge et al. 2009).

The meaning that is applied to a product can also influence the level of attachment felt towards it. Memories associated with an object are a key concept and are mentioned often in product attachment literature (Battarbee and Mattelmäki 2003; Mugge et al. 2009; Schifferstein and Zwartkruis-Pelgrim 2008). If a product comes to be associated with memories of a person, a happy event such as a birthday party, or a significant phase in ones' past, that product can come to represent and embody that to the owner. Attachment to this object is likely to be high as are feelings of irreplaceability; the meaning inherent in the product would not be present in an identical product specimen so that particular object is more precious (Mugge et al. 2010).

A possession can also symbolise affiliation to a certain group such as Apple Macintosh users. This affiliation, if felt to be positive, will increase attachment but can also be a cause of detachment if membership of the group comes to be regarded as undesirable (Battarbee and Mattelmäki 2003; Dodds et al. 2004; Mugge 2007).

While the usefulness of a product can increase feelings of attachment, a product that is not useful is likely to elicit feelings of detachment (Mugge et al. 2010). In their insightful 2003 study, Battarbee and Mattelmäki identified three categories of relationship, one of which portrayed the product as a facilitator or means of self-expression. This category of product enables its owner to meet various needs, for example a camera or carpenter's chisel. In this relationship the owner can play an active role in maintaining the status of the product for example by waxing a snowboard or servicing a computer; this process can increase the level of attachment further (Battarbee and Mattelmäki 2003).

Case Study

A mixed-methods study examining owner relationships with one specific eco product was undertaken. Eighty owners of one brand of leather slippers were surveyed using a questionnaire of mostly closed questions. Some of those questions were duplicated from the 2008 Study Consumer-Product Attachment: Measurement and Design Implications which studied owner feelings towards four different types of product (car, jewellery, lamp and clock). Results from both studies were then analysed and complimented with data from three semi-structured interviews with survey respondents.

The products used in this research are leather slippers specifically from the brand Motties. They are distinguished by the following attributes: being made from reclaimed materials, being made from leather, every pair is unique – a one-off, they can be 'designed' by the customer and made to order (i.e. colours and fabrics can be specified), they are made in the UK (and mostly sold to UK residents), they are 'handmade' – cruder than some mass-produced products, they are only available to buy online, £1 for every pair sold is donated to a homeless charity and the ordering and purchase transaction is conducted via the person who makes the slippers meaning customers have contact with the manufacturer.

The focus on one green product, while sacrificing the extent to which these data can be used to generalise about all green products, allows for a greater depth of understanding into complex consumer experiences.

Questionnaire results

On all Likert scale questions the results produced showed very low levels of variance.

This makes it difficult to ascertain the level of correlation between the relationship factors which comprise the dependent variables and the attributes, e.g. the relationship between attachment level and environmental concern. The correlation coefficients are calculated using Pearson's Product-Moment and the results are shown in table 2 on the next page.

Attribute compared to attachment	Correlation Coefficient (Pearson's r)	Two-tailed P value	Statistical Significance
Length of Ownership	0.05	0.641	Not Significant
Environmental Concern	0.09	0.41	Not Significant
Reclaimed Materials	0.17	0.121	Not Significant
Made in the UK	0.26	0.02	Significant
One-off/Unique	0.33	0.002	Very significant
Communication with the person who made them	0.2	0.076	Not Significant
Product bought from an independent company	0.24	0.032	Significant
Design Input	0.14	0.213	Not Significant

Table 2: Correlation between Attachment and Product Attributes/Customer Opinions

Table 2 shows the correlation between the overall attachment level and the importance of various product attributes given by the owner (scored on a 5-point Likert scale). Length of ownership and degree of concern for environmental issues are also included. The correlation coefficient in each case is calculated using Pearson's Product Moment; the p value was then produced and the statistical significance established. Only three correlations show significant correlation: those relating to the slippers being made in the UK, that they are produced by a small, independent company and, with the most significance, the fact that they are a 'one-off'.

'First of all Motties work as slippers - they do their job well. What makes them special is a combination of the other elements covered in this survey - their individuality, the ethical content (they carry an ethical 'embodied energy', which includes the charitable donation) and the relationship with the producer – It is the difference between something bought and something made, bespoke and personal and simply manufactured. Taken together all these factors combine to make a pair of Motties feel less disposable and more worth preserving.' 'My 2 year old Motties are growing old gracefully and are still very serviceable. My original resoled ones I keep for 'best' i.e. in my overnight bag. I think most people would agree that two pairs are ideal. The materials you use are far superior to mass produced slippers which become smelly within a few months. It's a relief to find a 'brand' that ticks so many boxes - simple, stylish and comfy design, good value, sustainable, repairable, small business in the UK.'

These four statements imply that reasons for attachment can be a combination of factors to do with an overall 'feel' of the ideology and production processes behind a product. It is difficult to separate these factors and rank them. These results indicate that an alignment to the ideology of a product can have a positive effect on feelings of attachment to that product.

Overall results suggested that Motties slippers are a high-attachment product and that owners are likely to feel that they are irreplaceable, indispensable and an extension of themselves.

Owners of Motties slippers show a high level of concern for environmental issues and disagreement with the concept that a product made from reclaimed materials is more 'discard-able'. This suggests that, in the case of this product at least, the use of reclaimed materials is not a reason to replace a product sooner.

Interestingly, the product attribute that could be considered the most 'green', i.e. the use of reclaimed materials, though thought to be important, is not perceived to have the highest importance by product owners. The two factors felt to be more important than the use of reclaimed materials were having had communication with the person who made the slippers and the fact that they were produced by a small 'independent' business.

These three factors encompass meanings within political/economic, environmental and personal spheres and the importance placed on them by owners illustrates the complexity of the product relationship and perception being assessed; however the differences between the levels of importance placed on all five attributes are so small it is very difficult to rank them or differentiate between them. The most segregated result was the lower level of importance placed on the slippers being a one-off. This attribute received both the highest level of 'unimportant' classifications and the lowest level of 'very important' scores.

The correlation data showed no correlation for all but three of the independent variables. Results suggested that those respondents that placed a high importance on the slippers being made in the UK or coming from a small 'independent' business were more likely to report a high level of attachment. Respondents that felt that the slippers being a one-off was important were even more likely to feel attached. Though the one-off attribute was reported as important by less people, those that did feel it was important were more attached to their slippers. This suggests that for some people owning a product that is unique elicits strong feelings of attachment towards it.

The comments section at the end of the survey produced the only qualitative data in this stage of the research. These results produced further illustration of the complex reasons for attachment feelings to Motties slippers. Functionality and appearance are mentioned here as additional influencing factors towards attachment and perceived value.

Overall it is not possible to conclude that a green product attribute contributes to a higher level of product attachment, though these results do indicate that green product attributes are unlikely to detract from product attachment.

Interview results

Three telephone interviews with survey respondents provided further insight into the product-owner relationship.

All three interviewees (referred to anonymously here as 'A', 'B' and 'C') described high levels of attachment to their slippers but reported different reasons for those feelings. A placed high importance on the comfort and practicality of the slippers and described the way they had become an integral part of his daily life: 'part of the relaxing process.' B on the other hand described two factors as the main reasons for feeling attached:

'It's mainly to do with the fact that they were handmade, they feel a bit more special because they weren't just produced in a factory, someone's actually thought about them and they're unique essentially; also because they come from recycled materials, that's the second reason.' C placed most importance on the fact that the slippers are a one-off. 'the fact that they're unique is quite a thing'. In all cases, the use of reclaimed materials fails to be the primary reason for attachment, though it is a secondary reason for one individual. All three slipper owners talked more enthusiastically about the fact that their slippers are not mass produced than the fact that they are made from reclaimed materials:

'I think I'm more conscious now of how things are made and how special things are. It's kind of going against the mass manufacturing of products where they're made for a pittance by people who are paid a pittance and you kind of feel like no one's winning really.' A

'The fact that my slippers are made in the UK adds to their special-ness, but I suppose it's not so much the UK, it's that they weren't made in a Chinese factory along with 50 million other pairs.' B

'That feeling that you've got a connection to the person who made them is really important.' C

Two respondents mention that the eco credentials were more influential in their feelings towards the slippers at the purchase stage than during ownership, for example B noted 'the eco thing was an influence in getting them but it's not that important now.' In spite of this both these respondents also mentioned, unprompted, that if someone commented on their slippers, they would say that they are made from reclaimed materials. The third respondent said that the fact that the slippers are made from reclaimed materials still elicits positive feelings towards them during ownership.

The look, feel and performance of the slippers were reported as significant drivers for attachment along with the frequency of use of the product.

The small-scale manufacture of the slippers prompted a perception that they are 'unique', 'special' and of higher value than if they had been mass produced. The method of production was more significant than the materials used and the human and social impact of the manufacture felt to be more important than the environmental impact, though the use of reclaimed materials was still somewhat significant in relation to attachment. However this was discussed more as a driver for the original purchase rather than a determinant of meaning during ownership, though a potential source of pride when discussing the product with others. The purchase of a product manufactured on a small scale was viewed as a means to prevent or 'make a stand' against perceived poor working conditions of some mass production operations and during ownership the meaning of this decision seems to become more introspective. The product meaning becomes related to the owner and the possession of something that is not commonly possessed.

Analysis

Primary research findings suggest that a 'green' product attribute is not a dominant influence in perception of the product beyond the point of purchase; though it is viewed as positive, other factors are more important in determining levels of attachment.

The definition of a green product is problematic. While the slippers used for the case study can be classed as a green product according to the information set out in the literature review, the interesting findings of the research stem from product aspects not fully related to their green credentials. The manufacturing method and the fact that each pair of slippers is unique proved to be more significant in this study than the fact that they are made from reclaimed materials. This suggests that if this study were to be repeated the question might benefit from being reframed. In a similar way to the green consumer category, it may be that the green product definition has lost some of its meaning due to the proliferation of green products and corporate attempts to 'go green'.

Findings confirm that product attachment is complex and influenced by a wide range of factors. A new form of attachment is identified: ideological attachment whereby the owner is attached to a product through an alignment to the ideology it represents. The provenance and political, ethical and environmental framework behind a product can be a source of pride and affirmation and can contribute to the product feeling like an extension of oneself. The identification of this form of attachment suggests that there may be a class of consumer that this relates to, distinct from the green consumer category.

The finding that owning a product that aligns with one's ideology might enhance feelings of attachment can be compared to existing literature which posits that attachment can be the 'admission' into an elite group through ownership of a particular product, such as with certain types of car (Mugge 2007). The product becomes more than an object which serves a practical function but holds a meaning for the owner that is linked to wider groups, beliefs and societies. Further research into this concept would be interesting.

A study into attachment to products that are entirely unique may have proved more useful for the sustainable design debate. Findings suggest that owning a product that is a one-off may contribute significantly to feelings of attachment towards that product for some people. More investigation into this area would be extremely informative to designers wishing to produce high-attachment products. These findings align with existing research into the personalisation of products and the positive affect this has on attachment feelings (Mugge et al. 2009). The process of personalisation discussed in existing research is usually done by the owner themselves rather than being 'designed-in'. Establishing a connection between attachment and uniqueness may provide designers with a means of creating that effect themselves.

Conclusions

One of the most interesting findings of this research is the value placed on knowing where, how and by whom a product is made. This was felt to add to the 'specialness' of the product. In the case of Motties slippers the 'handmade' aspect and the fact that the owner had often had contact with the person who made them was important. In part this value was derived from what the product is not; it is not mass-produced, it is not made in poor, exploitative conditions. A product that is produced on a small scale may also feel more unusual and contribute to an idea that the experience of owning it is exclusive and unique to a small group. This is a key area of interest that has arisen from the research. Investigation into the effect that small-scale production, insight into the manufacturing process, contact with the maker and 'making by hand' can have on product perception and attachment could provide 'quick-fix' ways for companies to increase their customer's bond with their products, for example by communicating with customers more about the manufacturing process. It also suggests disillusionment with the mass-production of mainstream consumerism in some consumer sectors.

The influence of design and the production of green products is limited and requires new direction. Product attachment, though a complex area to research, provides opportunities for new approaches to design that could reduce consumption and increase fulfilment.

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