

# THE RELATIONSHIP BETWEEN USER AND PRODUCT: DURABLE DESIGN THROUGH PERSONALISATION

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## **ABSTRACT**

There is an increased focus on emotional design in order to build more sustainable attitudes towards the design of products. According to Dieter Rams, a German industrial designer known for the timeless quality in his products, 'Good design is honest'. An introduction in emotional design into a university-level curriculum is essential in order to increase the students' understanding of its advantages in designing sustainable products. Being aware of the life of the product after production can help create durable design. In this article, the relationship between people and products is analysed to explore how emotions play a role in how a product is perceived. The research question is how to create a relationship between user and product, where emotions play an important role in how the user perceived the product through personalisation. The study provides a deeper understanding of how to achieve a meaningful relationship to a product. The interviewing of users revealed how their experiences had an impact on their perception of the product. The study showed how the relationship between the product and the user can be used as a learning process to create a friendly attitude towards sustainable design. This paper contributes to the discussion of how individuals have a relationship to their assets, and how this affects their attitude towards durable design.

*Keywords: Emotional design, senses, personalisation, ownership, sustainable design.*

## 1 BACKGROUND: USER PERCEPTIONS OF PRODUCTS

Product design education often tends to focus on the process from the idea to the finished product, but it is also important to address the events that occur after the product is put into use. This is an interesting area. User perceptions of products helps to create feelings. Most people have a relationship to their belongings, which means that they often become attached to certain things. A designer can therefore create products that make the user feel something and evoke certain emotions. Emotional attachment can be explained as the relationship in which people are easily carried away by their emotions [1]. The issue revolves around how to create a relationship between user and product, where emotions play an important role in how the product is perceived by the user through personalisation. Research on this has focused on emotional design. In the book, *Love Objects* by Anna Moran and SORCHA O'BRIEN, emotions and associations are explored in terms of materialism. The book provided an understanding of how products create emotions and associations, and why we like them so much. In *Emotionally Durable Design*, Chapman theorises that it is possible to achieve durable design by creating a relationship between the user and the product [1]. This should be looked into by including people's perception of the products in an interview. This study focus on the user and sees the object from the user's angle to identify how products may appear to be sustainable.

## 2 METHODS: UNDERSTANDING INTERACTION WITH PRODUCTS

This study has a participatory approach of a master student in a master education in product design using qualitative methods, such as interviews and workshop studies [2]. In interviews, how products are perceived by different users was discussed [3]. This was studied to gain an understanding of the feelings that emerge through interaction with products. It is an in-depth study that looks at how the senses have an impact on the association and feelings that are created through interaction with different products. The methods used are taken from *Research Methods in Human-Computer*

*Interaction* by Lazar, Feng and Hochheiser [3] which provided inspiration for how methods can be used to get the most out of the results.

## 2.1 Interview: Individual memories connected to a product

Throughout the interviews, what attributes a product can have for it to provide a sentimental value was explored. Would these values change according to the background of the user? By interviewing more users, it was discovered that experiences have an impact on how a person experiences the product. If the individual has memories that can be connected to the product, it may help to recreate those memories to create a relationship between the user and product. Gifts have sentimental value for the user. If you buy products that are expensive in relation to your budget, the user will appreciate the product more. Goods that are made of materials that are known to be of good quality will also help the user to appreciate the product more than a cheap or badly made product [4]. Brands also produce a higher value for the user. If the product is associated with something good, users will feel that they supported something positive.

## 2.2 Workshop: How senses play a role in the perception of a product

This study focuses on how senses play a role in the perception of a product. By using various smells, a user can create a connection to an object. Jinshop Lee is an industrial designer and professor of design, who believes that good design appeals to all five senses [6]. In a Ted conference, Lee said, 'for a product to be a success, all the senses must be put to use'. This includes sight, touch, smell, sound and taste factors, which help to associate a product with a better experience [5]. To put this theory to the test, a survey was conducted in which a user ranked a product in terms of how this product was conceived [6].

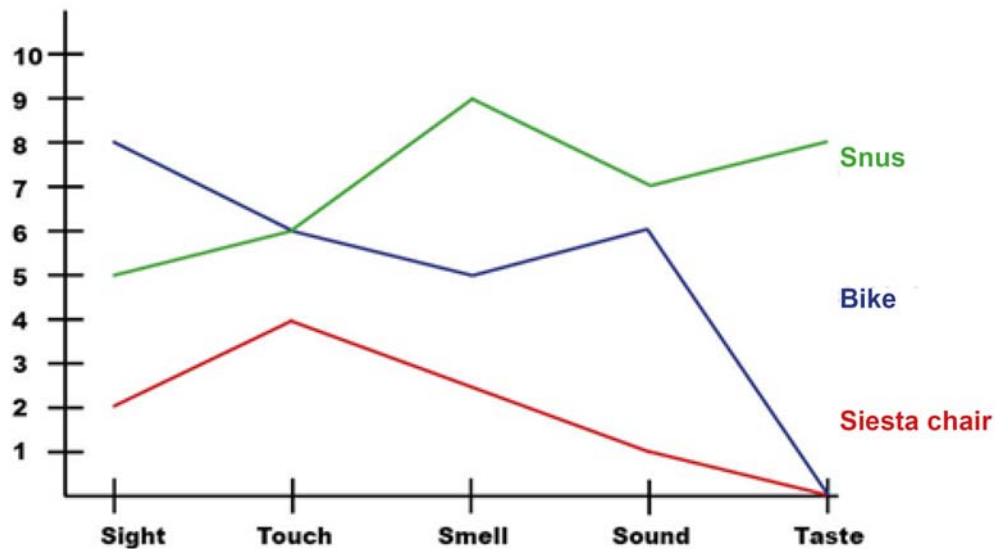


Figure 1. [5]

In this case study, students were asked to make an analysis of a chair, including artefacts [3]. The chair used was a Siesta chair designed by Ingmar Relling. Another method used was inspired from the *Dialogue as a Method* by Jette Fog [7] and concerned qualitative approaches for in-depths interviews.



*Figure 2. The Siesta chair Siesta designed by Ingmar Relling (1966) [8]*

The chair smelled of old cigarette smoke, and this helped to change the perception of the chair. A product that appeals to the sense of smell will be perceived as positive, whereas a product that smells bad will have a negative response. By giving a product an odour that the user likes, the product is perceived more positively than it otherwise would have been. After studying this further, it was clear that the sense of smell helps to create an image of products, but this can vary from person to person due to the memories this scent evokes within the individual. Different traditions and backgrounds have a correlation with how we perceive products. Culture and heritage can have an impact on user taste, and senses can be used to reinforce memories attached to certain objects. Thus, traditional characteristics can be used to appeal to the target user.

### 3 A NARRATIVE OF A PERSONAL OBJECT

According to Kit Hinrichs [9], 'the most effective design has a narrative thread. A narrative design is a way to help our clients to tell the story of who they are and what they value... And do so in a way that holds the viewers' interest and make them care'.

I offer a personal example of how to tell a story through the product, so the object keeps the interest of the user and gets them to care about it.



*Figure 3. 'Elgar'*

On vacation, we visited a souvenir shop where I found a moose teddy bear, which I named 'Elgar'. The moose wore a knitted sweater, typically Norwegian, and it was expensive. I forced myself to get one. I knew it was expensive, which meant that the bear was a little extra special. This teddy bear and I were well connected, and it went with me everywhere. Its sweater was quickly replaced by something my grandmother knit. This made it even more special. Although there were several people with this type of teddy bear, they were all slightly different. When I look back, there are several reasons for why I was so attached to this bear. One, I have a memory associated with it. Two, it was expensive and thus valuable to me. Three, I could change the look by switching the sweater, which made it more personal. Four, all the teddies were slightly different because they were made by hand. Five, since it had human

traits, it was possible to give it a name and thus a personality. Six, it had a smell—it smelled like home. These are all factors that helped to create a good relationship and association with this product.

#### 4 FLEXIBLE PRODUCTS

Many products can be changed or customised even after purchase. It is possible to adapt the design by changing colour, covers and making your own choices. Emotional reactions constitute the very foundation of individuality; they are what distinguish us from other [1]. Creating something personal means giving the user ownership of the product by providing them with the ability to choose how it will look [11]. We don't just personalise products, many services have begun to adopt methods to make the experience more personal for the user. Take Spotify, which allows the user to discover new music based on what we have listen to before. In this way, the service is adapting to the user. Services and products are customised according to customer preferences [12]. Customisation and personalisation enables businesses to give users a chance to create and select products based on their own specifications, but with limitations. Some products provide opportunities where the user can have an impact on how the product should look, e.g. covers on mobile phones. By attaching a cover, the user can associate their identity with the product. The object will then become more personal and express the owner's identity.

An explorative research design was used to find out how personalisation of products can help to increase connection to the product. It is fun to put your own stamp on things. By making a bit of effort with the product, the user will often feel a connection to the product. Products that can be personalised may appeal more to a younger user base. This is probably because the younger user group has a greater need to find out who they are as a person. If personalisation requires too much of the user's time, it will not be as effective as a simple process. Therefore, products that provide an easy opportunity for change may seem more appealing than products that offer many opportunities where you either need some knowledge or need to learn something new. Therefore, products that provide a limited number of choices are better than products with many, as the user can more easily see what can be changed.

#### 5 ATTITUDES AND VALUES TO CREATE SUSTAINABLE DEVELOPMENT

The introduction of attitudes and values to good product development is relevant in a university-level program to increase our understanding of emotional design and how this can be used advantageously in designing sustainable products. It is important to know the users' attitudes and values to contribute to innovations in design. Therefore, by being aware of the products life even after it is made, we can create a more durable design.

Designers are also consumers. When designing to create an emotional response, the designer can start by evaluating his or her own answers to things and consider how this creates a perception of a given experience. As designers, we are fortunate to have experience as both creators and end users, so it is imperative that this simple fact can be used as a creative tool [1]. For a designer, it may be important to have objective thinking but still take a subjective approach. Being objective means that the designer tries to be neutral, not trying to convince anyone about their own point of view but interested in seeing the issue from different angles [14]. By having a subjective approach, the designer's own opinions and perceptions play a role in the design of products.

##### 5.1 Emotional sustainable design

To create meaningful things can be to create smart things. Emotional sustainable design increases the relationship between user and product by creating a more sustainable approach to the design of products [16]. Thus, reducing the use of new products and creating a relationship between users and products may result in a reluctance to buy too many new products [15]. As a designer, it is important to have an understanding of how the relationship between user and product can be enhanced to create something sustainable. Emotional durable design focuses on the relationship between design and user to create a more durable approach to products. It helps to keep the users interest in the product where the user does not have a need to buy something new [10]. Emotionally durable design must be much more than just creating products that modify or adapt and maintain our empathy. If objects are beautifully designed, we will want to hold onto them, we will have experiences with them, and we will want to repair them. Take for example the action of fixing a broken radio, restoring a car, or

upholstering a piece of furniture. These are actions that help to create a bond between product and the user.

Alongside developing sustainable design, organisations should strive to sell products that can be updated or restored, and equally important, products that can be easily repaired [17]. If the end user does not have any desire to keep things longer, they will not. We must design products that the user actually wants to keep, maintain and use for an extended period.

## 6 MARKETING

Before products are purchased, the user often already has a personal relationship with the product through previous contact with the brand [18]. This comes through advertising and contact with the brand through others, and this makes the user confident that he or she knows how the product works [19]. When people go to buy a new product they tend to have many thoughts and perceptions of what products are good and which ones they prefer based on their own values. Thus bringing a new product to a market that already has an established brand version might then be difficult since the first product has already made an impression on the user.

## 7 DISCUSSION: MEMORABLE DESIGN

According to Rams, 'Good design is making something intelligible and memorable. Great design is making something memorable and meaningful' [18].

The assets we like best tend to have a history or memories associated with them. Products are designed to be useful to us, but often we only want a product that makes us feel good. It is this balance that is important in product design—it should be both user-friendly, meet expectations and make us feel good if we are to like the product. There are many theories and attempts to rationalise human emotions by mapping them in different ways in a variety of theoretical models. An adequate explanation of human emotion is difficult to find. Yet, within the special, incidental and distinctiveness of human emotions is where real design potential lies.

Our history affects how we perceive products. As a conscious state of mind gives the story a sense of direction for thought and potential action. It is of little help to look at a product as meaningful, but rather look at how we interact and perceive the product that generates meaning for us [10]. Genuine emotional memories take time develop, and they come from interaction; the associations people have to objects, helps to promote them. Take souvenirs as an example; these are rarely seen as beautiful, but they have sentimental value. These objects are popular because they make us feel good [11].

Through interaction with the product in terms of assembly, the product creates a relationship with the user. Ikea furniture, where the user must assemble the product themselves, shows that by putting time into the furniture, the user learns how the product works. This may be challenging and difficult, if not irritating, but when it is assembled, the user will feel a kind of mastery.

Our perception of objects can be broken down as follows: the first meeting could be based on an assessment of the object's price and quality, the utility the object gives us and the objects desirability. Later, when it comes to living with a product, we forget the cost and look at the object's usefulness. It becomes a part of our lives and perhaps something we do not give too much thought to on a daily basis. We do not think often of this until we are in a situation where we must make a choice whether we want to keep the asset or not [10].

## 8 CONCLUSION: UNDERSTANDING THE RELATIONSHIP BETWEEN USER AND PRODUCT

We can create a relationship between the user and the product because emotions play an important role in how the product will be perceived by the user through personalisation. People's memories can be connected to products. Products can recreate those memories and thus create a relationship between user and product. Creating something that allows personalisation may give the user a sense of ownership of the product. Products are designed to be useful for us, but sometimes we want products that make us feel good. To create a new and more durable design, it is important to look at the life of the product after it is produced. By looking at a user's interaction with the product, we see opportunities for a more durable and sustainable design. As a designer, it is also important to have an understanding of how the relationship between user and product can be enhanced in order to create

something sustainable. We must design products that the user wants to keep, maintain and use for an extended period even in a good economy when it is easier to buy something new than repair.

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