EMOTIONAL ASSOCIATIONS BETWEEN THE USER AND THE DESIGNED PRODUCT

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ABSTRACT
Today, consumption habits and behaviors have changed; consumption is no longer only within the scope of basic needs and basic use-value. People now consume not only the products they need, but also those they do not need. Although there are various products in the market, buying a specific product by choosing from among them may depend on the design features of that product. Due to these design features, an emotional relationship can be established between people and products, and people can buy products for this reason. In this context, it can be said that with the design decisions taken by the designer while designing a product, directly or indirectly, the product can be selected and purchased from among the options that are out of necessity. In this study, it is aimed to underline what these design features can be and the role of industrial designers at this point. In the result of the study, it is revealed that the emotional relationship is established with the design features of the products such as color, material, texture, form and usage, and the memories that people have accumulated in their lives with the help of these features.
Keywords: Emotion, Emotional Associations, Design, Product Design, Designer

ÖZET
Günümüzde tüketim alışkanlıkları ve davranışları değişmiş, tüketim artık yalnızca temel ihtiyaçlar ve temel kullanım değeri kapsamından çıkmıştır. İnsanlar artık sadece ihtiyaç duydukları ürünleri değil, ihtiyaç duymadıkları ürünleri de tüketmektedirler. Piyasada çeşitli ürünler bulunmasına rağmen, belirli bir ürünü aralarından seçim yaparak satın almak, o ürünün tasarım özelliklerine bağlı olabilir. Bu tasarım özelliklerinden dolayı, insanlar ve ürünler arasında duygusal bir ilişki kurulabilmekte ve insanlar bu sebeple ürünleri satın alabilmektedirler.

Bu bağlamda tasarımcının bir ürünü tasarlarken aldığı tasarım kararları ile direkt veya dolaylı yoldan, ürünün ihtiyaç dışında var olan seçenekler arasından seçilmesini ve satın alınmasını sağlayabildiği söylenebilir. Bu çalışmada kullanıcı ile ürün arasında duygusal ilişkiler kurulmasını sağlayan tasarım özelliklerinin neler olabileceği ve bu noktada endüstriyel tasarımcıların rolünün altını çizmek amaçlanmaktadır. Çalışma sonucunda; ürünlerin renk, malzeme, doku, form, kullanım şekli gibi tasarım özellikleri ve bu özelliklerin uyarısıyla insanların yaşamlarında biriktirdiği anıların tekrardan su yüzüne çıkması ile belirtilen duygusal ilişkinin kurulduğu ortaya çıkmaktadır.
Anahtar Kelimeler: Duygu, Duygusal İlişkiler, Tasarım, Ürün Tasarımı, Tasarımcı

1. INTRODUCTION

Emotion is not a simple fact. Although emotions are emphasized in almost all-important aspects of our lives, their nature, causes, and consequences are the least understood aspect of the human experience (BenZe'ev, 2001). Even defining emotion is an extremely complex task. People have a hard time even expressing what an emotion is. People often prefer to simply name some emotions such as anger, happiness or sadness (Lupton, 1998). For those trying to make an explanation, emotion is often defined in terms of related phenomena, such as a mood, feeling or sentiment.

In more recent years, the pressures to make innovative solutions especially in the field of product design have grown. Since manufactured products have become more global, the competitive pressures from overseas companies have increased significantly (Baxter, 1995: p.1). This can be perceived not only as a threat to multinational industrial giants, but also as a threat to designers. Because the competition that emerged to create innovative product design has also started to encourage a sales-oriented design approach. However, creating a potential emotional bond between the designed product and the user will not only be preferable, but will both relieve and differentiate the industrial environment that attaches importance to it, and will also push the designer to focus on designing a product specifically instead of focusing on a sales-oriented product. This raises the issue of emotional product design.

As stated before, since emotion is a complex concept, it is not easy to trace the concept of "emotion" through the product, to create it on the product, and to discuss it between the product and the user. Since designing a new product is a problem in itself, trying to add emotional value to it, makes the design process even more challenging for the designer. The design process, which requires research, careful planning, and the ability to use systematic methods, is becoming far from being simple when an emotion is added to it. On the other hand, it can also help to give more direct answers to the questions of "whom and what are we designing for". At this stage, to think about emotion and product design process together, and to understand which aspects of the product design helps to create emotional bond in terms of the user. This study aims to reveal these issues with the existing studies in the literature and to understand with which design features the product-emotion relations can emerge qualitatively.

2. EMOTION

Emotions play a central role in people's lives and attract everyone's attention. Although communication media such as colloquial speech, poems, novels and movies are loaded with emotional language (Ben-Ze'ev, 2001), they are a highly complex phenomenon that requires careful and systematic analysis of their features and components.

The term emotion cannot be fully defined as a person's description of their emotional experience; it is defined and measured by electrophysiological measurements of events occurring in the brain, nervous system or circulatory, respiratory and secretory systems; by expression patterns or motor behaviors that occur as a result of feelings or emotions (Izard, 1977). A complete definition of emotion must take into account the three aspects or components as:

"(a) The experience or conscious feeling of emotion,
(b) The processes that occur in the brain and nervous system,
(c) The observable expressive patterns of emotions particularly those on face" (p. 4).

Parkinson (1997) argued that emotions are characteristically intentional states; they take an object of some sort. He stated that "it is hard to imagine a pure state of pride, anger, or love without the state being directed at something: You are proud of your success; angry with someone who has insulted you, in love with someone in particular, rather than just proud, angry, or in love per se" (Parkinson, 1997: p. 2). Thus, emotions express a certain relationship with a person or some object, person that including the self, or event that may be real, remembered, or imagined. This relation signifies an intrinsically evaluative one. If someone is emotional, that person will be good or bad, approving or disapproving, relieved or disappointed about some state of affairs or some definite object –whether imagined or real. These reactions are not permanent; they will not last too long. Therefore, emotions are considered to be evaluative, affective, intentional, and short-term conditions (Parkinson, 1997).

According to Parkinson (1997) the way of approaching the question of 'what emotion necessitates?' requires looking at the different aspects and components of emotional experience. These aspects are cognitive evaluations of the situation, bodily responses, facial (and other) expressions, and action impulses that are associated with emotional experience and considered as characteristics of emotional experience. Thus, it is important to differentiate emotions and distinguish them from other states by its components (Desmet, 2003).

1. Situational evaluations and interpretations: A situation is experiencing something as positive or negative, in a good or bad light. Appraisal is a crucial concept in evaluative aspect of emotion (Parkinson, 1997). The appraisal process includes a set of decision-making components (Lazarus, 1991). These create evaluative patterns that differentiate among each of the emotions. Lazarus (1968) suggested two facets for emotional appraisal and classified as primary and secondary appraisal. In primary appraisal, the concern was on the motivational stakes in adaptation encounter (Lazarus, 1991); in secondary appraisal, the concern is on the options for coping and expectations; the individual evaluates his or her capacity for handling the situation -coping potential.

2. Bodily changes: Lazarus (1991) maintained that Autonomic Nervous System (ANS) activity and its end-organ effects, brain activity, and hormonal secretions are sometimes phenomena of emotions. The responses may occur in characteristic of increase in heart rate and blood pressure (Arnold, 1960), perspiration, and other bodily stirrings (Dennis, 1989).

3. Emotional expression: Expressive behavior is one of the most obvious indicators of emotional experience (Parkinson, 1997). Expression refers to movements and sounds made by someone that shows the presence of emotion to another. These movements and sounds are expressive to the extent that they convey emotional information intentionally or unintentionally. The face, in particular, is the most important channel of emotional expression, as it has a wide variety of finely patterned movements. Additionally, emotion can be expressed through tone of voice, body posture, and gestures (Dennis, 1989).

4. Motivated action: Emotions include the impulse to act in certain ways that is appropriate for the particular emotion. From this perspective of all given descriptions above, the components of an emotional experience can be summarized by Milton's (2005) explanation: "Emotional episode begins with a stimulus (starting point of an evaluation process) and ends with an action motivated by feeling" (p. 204) (see Figure 1).

At this point, there are four elements involved in the mentioned process. To explain these elements with an example: seeing a snake causes the stomach to tighten and the heart to start beating faster, resulting in fear, motivation to take an action such as throwing a stone or running away (Milton, 2005).
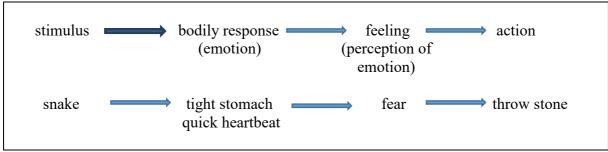
stimulus ⟶ bodily response (emotion) ⟶ feeling (perception of emotion) ⟶ action

snake ⟶ tight stomach quick heartbeat ⟶ fear ⟶ throw stone

Figure 1. "An illustration of an emotional experience episode" (Milton, 2005, p.204).

3. PRODUCT DESIGN AND EMOTION

Designers have been designing products for years. As Morris (2016) stated that all products link in some way with people and the first crucial place to start reaching them is understand their needs and wants better. Good designers know how to design for others, not just for themselves or for some blind market (p.5). This approach of putting people to the center of the design process is referred to terms as human centered design, or user-centered design.

As Baxter (1995) mentioned in his book and as stated below, being customer or user oriented is the second feature that an industrial designer of the future should have:

"1. Multi-skilled

  2. Fanatically 'customer oriented'

  3. Deeply committed to systematic design methods

  4. Knowledgeable about a wide range of manufacturing business

  5. Comfortable in marketing, design and engineering disciplines

  6. Accomplish at creative problem solving" (p.4).

The necessity of the industrial designer to be customer oriented in the product design process should not only requires to plan the technical dimensions of the design but also the emotional effects it will create on the user. Although emotions influence how a customer interacts with the products, most studies on product design have focused on customer needs in terms of functionality and utility.

Khalid and Helander (2006) claimed the success of a product in marketplace may be determined by its aesthetic appeal, the pleasure it creates and the satisfaction it brings to the customer. Thus the aim is to achieve a pleasurable and satisfying product. Yun Yen, Lin and Lin (2014) reported that product design involves the emotional characteristics of attractiveness, beauty, and creativity. These characteristics influence the emotion of consumers in respect to repurchase, willingness to recommend, attachment, positive emotion and passion. With all these findings, the necessity of product emotional design highlighted.

Thus, many design researchers and scholars have focused on different aspects of design and emotion in recent years. Different studies have been conducted in order to explore the relationship between design and emotion and in order to understand what emotional design should be and the role of emotion in design. According to Ho and Siu (2012) some researchers have considered emotion design "as a tool that designers can use to deliver their messages and emotions, while others have believed that it is a kind of experience and response when an individual is using an object" (p. 9).

From all these it is clear that products can evoke different emotions. As Desmett, Porcelijn and Dijk (2007) stated, "people can admire the latest ultra-slim laptop, be irritated by an annoying telephone, feel at ease in a comfortable sofa" (p.142). They also reported that "it was possible to design products that target specific types of emotions" (p.142). If the emotion generated by the product is positive, the customer establishes a connection with the product and then takes the action of buying the product because he wants to have that product. Here, the motivated action example mentioned in Figure 1 can be reshaped through product purchase as in Figure 2. That is, sometimes it is not necessary to have bought and experienced a product beforehand in order to establish an emotional bond with it. Sometimes, users can create a positive emotion against a product when they see it, even though they do not need it, and buy that product. Here, the experience is not an experience that develops as you use that product over time, but an emotional bond experience that develops as you hold it in your hands at the first sight, or maybe because of a design feature without touching it at all. At this point, the importance of consumption emerges. Today, the consumption culture has increased due to social media promotions, advertisements on various platforms, and payment facilities provided. Consuming is no longer an action that occurs only as a result of need, but also an action that occurs as a result of various reasons, even though there is no need. While there are many product options from the same product group on the market, it is important to be chosen among these options out of necessity and the reason for choosing. Any design decision of the product reveals the aforementioned emotion in the person, and the person buys this product.
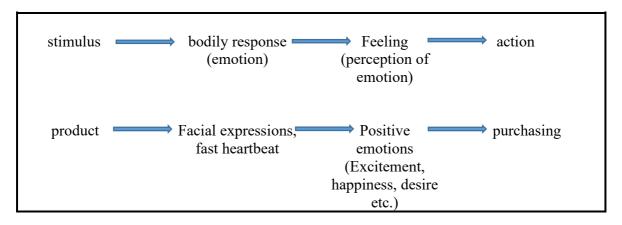

Figure 2. An illustration of an emotional experience episode for the product purchasing process (inspired by Milton, 2005).

At the level of emotional experience described in Figure 2, it is important for designers what product features or feelings cause people to buy a product even though they do not need it. In this direction, in this study, research was conducted on the reasons for purchasing a product by creating a pleasant emotion such as desire, fascination, satisfaction and etc. for a certain reason, even though it is not needed.

4. SCOPE OF STUDY
4.1. Participants
A total of 45 participants, who like to shop, were included in this study. 29 participants were females, 16 participants were male and they were between 28 and 42 years of age. The survey was applied at different times of the day during the week and also on the weekend. The participants completed the interview in approximately 3 minutes. The data of the study were obtained during a 1-month period through face-to-face interview.

4.2. Method

In this study, face to face interview was applied as a method. Within the scope of the interview, only two interrelated questions were asked to the participants:

"What was the last thing you bought for yourself that you didn't need?"

"What made you buy this product even though you didn't need it?"

The responses from the participants were recorded, and then the product groups purchased even though they were not needed and the features that caused the purchase of these products were analyzed.

4.3. Results

According to the data obtained from the participants, the most purchased product groups, even though they are not needed and how many people bought it are indicated in Table 1 below. The total number of purchases is 2 more than the number of participants, because 2 participants stated that they bought two products at the same time.

Table 1. Products Purchased Out of Necessity.

Product Groups		Number of Purchases
Small scale electronic products	Phone case	5
	Earphone case	4
	Keyboard and mouse	2
Daily use	Mug	7
	Towel, bathrobe	3
Toy	Teddy Bear	5
	Toy car	2
Stationery Goods	Pen, Fountain pen	5
	Notebook	2
	Office desktop set	1
Shoe	Sneakers	6
Personal care product	Hand cream	2
	Perfume	3
6 product group in total		47 number of purchase in total

After the participants were asked which product they bought, the reasons for purchasing these products out of necessity were asked. The answers given are briefly expressed in Table 2 below.

Table 2. Reasons for Purchasing Products Out of Necessity.

Product Groups		Reasons
Small scale electronic products	Phone case	Vibrant colors Pattern on the case Ergonomic
	Earphone case	Color Different way of opening and closing Form of the case
	Keyboard and mouse	High-tech form ergonomic
Daily use	Mug	Material Color Ergonomic Memory Form Pattern
	Towel, bathrobe	Texture and softness Memory
Toy	Teddy Bear	Being so sweet Softness Color
	Toy car	Memory
Stationery Goods	Pen, Fountain pen	Material Color of the pen Color of the ink Case of the pen
	Notebook	Material of the cover Pattern on the cover
	Office desktop set	Form
Shoe	Sneakers	Model Color ergonomic
Personal care product	Hand cream	Packaging design Smell-memory
	Perfume	Packaging design Smell

5. DISCUSSION AND CONCLUSION

Today, consumption habits and behaviors have changed. Although one of the basic definitions of consumption is stated as "a complex social phenomenon in which people consume goods or services for reasons beyond their basic use-value" (Kutucuoğlu, Saltık, Fırat and Tuncel, 2013: p.182); consumption is no longer within the scope of basic needs and basic use-value. Advertisements, promotions and payment facilities that we encounter in many environments in our daily lives have increased the realization of consumption. For these reasons, people now consume not only the products they need, but also those they do not need.

Although there are various products in the market, buying a product by choosing from among them may depend on the design elements of that product. In this study, it is aimed to underline what these design elements can be and the role of industrial designers at this point.

Design elements such as color, material and texture play an important role in purchasing a product out of necessity. Due to these design elements, people like or dislike the products, and even form an emotional bond with the products. In other words, the potential to form an emotional bond with the product is high. Since it is the product designers who decide on the design elements that cause this bond and design with them, they have serious effects on the market. The data in table 1 and table 2 clearly show that any feature of the products leads users to buy products even though they are out of need. The reasons for purchasing the products mentioned here are due to the need for product designers to focus on the feelings that the user can create while designing a product, to expand the user's likes and preferences, and thus to be preferred by people with different tastes.

When the reasons stated in Table 2 are examined, it is seen again how important the color, material and texture are. The material chosen in the product appears as a factor that also affects the ergonomics of that product. Excerpts from the comments received from the participants regarding these three design elements are shared below:

"Even though I have a lot of phone cases, the color was so vibrant that it's perfect for a summer day. I couldn't stop buying it."

"As soon as I took the case in my hand, I could feel its comfort, I started holding the phone much more comfortably. I bought it because the phone is the product I use the most during the day."

"The fabric was so soft that I wanted to pamper myself."

"The existing apparatus of the pen where the fingers are held was so soft that I wanted to buy it."

"I actually have a keyboard that I use, but when I tried the product in the electronic market, one of the reasons I bought it, was to see that it was very comfortable and that I could write only by touching it with my fingers without applying much force."

It is expected that a product will create an emotional bond by reminding a person of a moment, rather than an appreciation for any design feature. Memories consist of experiences that exist in people's lives, and people can encode these experiences sometimes with a product, sometimes with a scent, or sometimes even with a pattern. When these codes appear, our memories come alive and the product that causes it starts to come to the fore. The statements of the participants regarding this issue are shared below:

"When I was little, my grandmother used to look after me, and I saw a mug very similar to the one she made me drink linden flower. It reminded me of the moments I shared with my grandmother, and I even smelled my grandmother's scent. Of course I should have gotten this mug."

"It was very similar to my favorite toy car that I couldn't stop playing with but unfortunately lost when I was a little boy. I wanted my son to play with this car too."

Apart from its functional performance, a product can also be preferred just because it is package design. A good package design can also cause people to buy that product and use it in their homes, rooms and offices for exhibition purposes only. Participant comments on this subject are given below:

"I saw a box on the shelf in the store and I really liked it. It had pop art pictures on it. Although I didn't know what it was at first, I took it in my hand, then I realized that it was a hand cream. I bought the product, although I use another brand."

"The last time I bought a perfume myself when I didn't need it, I bought it only because of the bottle design. The bottle was beautiful; the cap was beautiful. Of course, I wouldn't have bought it if it didn't smell good because it was expensive, but it caught my attention because of the bottle design."

All the examples given above show that, without the needs of people, any product creates an appreciation and even an emotional attachment to the product based on the design approach or design decision. It is clearly seen that design and emotions are not independent of each other, but affect each other. At this point, the importance of the role of product designers who creates both for their own satisfaction and for their products to be appreciated and even consumed is crucial in creating this emotional bond.

Authors Note: The theoretical part of this study on emotion is quoted from the content of Assoc. Prof. Dr. Elif Güneş's doctoral thesis, which has not been published elsewhere (Helvacıoğlu, 2011).

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