Evaluation of a Product Under an Attitudinal Approach

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1. Introduction
In a brief overview of the course of design history, it is evident that in the beginning of industrialization there was a great confusion concerning the formal conception of products. It is clear that in artistic movements as Arts and Crafts, Art Nouveau, Liberty, Secession, De Stijl there was a search for a new formal solution with strong aesthetic value. These artistic movements have represented different points of view of world and they have reflected this in the conception of the products, as witnesses of their time. This was determinative for the updating and the improvement of the industrial product. In continuity of this process, design dialogued with the historical vanguards and expressed in the forms of the products the aesthetic questions of the movements that had struck art from the XIX century to the beginning of the XX century.

In the first decades of century XX functionalism was a principle of design established by European, especially Germany. According to functionalism, it had to be assumed a formal language adequate to the industrial technology, to be taken as an ideological manifest, adjusting the formal configuration to the way a product would be produced and function. Such and other characteristics constitute positive attributes and advances in the projetual methodology and had determined the rise in the quality of the resultant of the project of design.

After World War II, with contributions of Ergonomics, one another paradigm of design was added to the functionalism requirements - the adequacy of the product to the user in the execution of the task. Then, the task was considered as part of a laboral and economically productive activity. With the consolidation of the research on the human/machine interaction and of its application in other areas of human being performance, the products had started to present an increasing improvement in its design, with better usability. In the last few decades of the passed century, the meaning has gained increasing relevance in the development of object project and in the systems of information. (Niemeyer, 2003)

The design process, for its interdisciplinary character, requires an integrated procedure of diverse areas of knowledge - technology, aesthetic, communication etc. This leads to a crescent complexity of this professional
activity and to an increasing of the scientific basis in design decisions. Therefore, the social intervention of designers will be in a more consequent and consistent way. With no doubt, this is indispensable, since the relevance of design is increasing. Designer belongs to one of the professional categories that are responsible for the elaboration of our materiality. Each time products play a more expressive role in the construction and life style of contemporary individuals.

After being neglected for a long time, in the last decades it emerged a sudden interest in the emotional answers elicited by products in consumers. The affective side of the experience with a product turned out to be a hot topic. This is well evidenced by the conferences focusing the emotional issue carried out in recent years (see, for example, Green and Jordan; Harada, 2002; Overbeeke and Helkert, 1999).

These developments have great implications in design research and design education. It has implies in increasing of knowledge about the relationship between people and products, the feelings, moods, expectations involved and emotional participation. The attitudinal design approach requires for sure design methods and tools that would provide the designer the adequate basis for him/her to design a product that could establish an emotionally stimulating relationship with its addressee.

2. Basic Concepts

One of the central issues of current modernity is the emphasis in the singularity of the individual - in its emotions, in the direct and personal experiência, the expression of affectivities, a phenomenon seen as a trend described by theoreticians of late modernity such as Giddens (1990), Luhmann (1979) and Castells (2000). The theoreticians of the after-traditional society have pointed out the fact that current social order brings an increasing complexity to all the aspects of the social life and to the notion of the culture. In this scenery, the focus in the affective aspects can be seen as one of the attempts to deal with the increasing present complexity in people’s life.

It is needed an increase of the internal complexity to deal with the ambient complexity (umwelt), in which emotions and affection are not mere riots of the rational thought, but in fact a certainly necessary resource for orientation and knowledge. Thus, a design tied with emotions and to experience can be seen as a result of the complexity of the postindustrial environment, and as a reaction to this same new order. Design must, consequently, be considered according to these same relations.

Practical the social contemporaries must be seen as reflexives of the conjectural circumstance, according to theories on late modernity. Consequently, our "tools" must have the possibility to be adaptable and sensible to the constant changes of our tasks, interests, communications, and, certainly, affection and emotions.

This research has aimed to explore the theoretical the basis regarding how the attitude of the addressee intervenes with its relation with a product and to apply the probing tools in a Brazilian sample. After evaluating the results, we have expected to identify the interference of cultural characteristics, individual values and life style in a product evaluation.
3. Elements of the Research

3.1. Characterization of the Shavers

The type of product that was used in the research was the shaver. The criteria for selecting it were: an everyday use product, with no social restrict, that is easy to find in the national market and with a significant variety of models and prices. The product category chosen was the shaver. We have worked with 21 models of shavers, of different brands, all easily found in Brazilian market.

<table>
<thead>
<tr>
<th>Code</th>
<th>Brand</th>
<th>Model</th>
<th>Price</th>
<th>Number of Pieces / Blister</th>
<th>Unitary Price</th>
<th>Number of Blades</th>
<th>Pivoting Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Schick</td>
<td>Ultrasound Pele Normal</td>
<td>R$ 3,13</td>
<td>2</td>
<td>R$ 1,57</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>B</td>
<td>Exacta</td>
<td>Pele Sensitive</td>
<td>R$ 3,37</td>
<td>2</td>
<td>R$ 1,69</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>C</td>
<td>Xreme 3</td>
<td></td>
<td>R$ 8,77</td>
<td>2</td>
<td>R$ 4,39</td>
<td>3</td>
<td>YES</td>
</tr>
<tr>
<td>D</td>
<td>Gillette</td>
<td>Sensor Excel Azul</td>
<td>R$ 7,25</td>
<td>1</td>
<td>R$ 7,25</td>
<td>2</td>
<td>YES</td>
</tr>
<tr>
<td>E</td>
<td>Prestobarba</td>
<td>Ultragrip</td>
<td>R$ 4,30</td>
<td>2</td>
<td>R$ 2,15</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>F</td>
<td>Prestobarba</td>
<td>Excel</td>
<td>R$ 4,89</td>
<td>2</td>
<td>R$ 2,45</td>
<td>2</td>
<td>YES</td>
</tr>
<tr>
<td>G</td>
<td>Prestobarba</td>
<td></td>
<td>R$ 3,50</td>
<td>2</td>
<td>R$ 1,75</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>H</td>
<td>Mach 3 Turbo</td>
<td></td>
<td>R$ 19,90</td>
<td>1</td>
<td>R$ 19,90</td>
<td>3</td>
<td>YES</td>
</tr>
<tr>
<td>I</td>
<td>Mach 3 Champion</td>
<td></td>
<td>R$ 15,50</td>
<td>1</td>
<td>R$ 15,50</td>
<td>3</td>
<td>YES</td>
</tr>
<tr>
<td>J</td>
<td>Personna</td>
<td>Comfort Pelle Sensitive</td>
<td>R$ 3,80</td>
<td>2</td>
<td>R$ 1,90</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>K</td>
<td>Personna</td>
<td>Comfort Pelle Normal</td>
<td>R$ 3,59</td>
<td>2</td>
<td>R$ 1,80</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>L</td>
<td>Personna</td>
<td>Comfort Touch Pelle Sensitive</td>
<td>R$ 5,30</td>
<td>2</td>
<td>R$ 2,65</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>M</td>
<td>BIC</td>
<td>Comfort Twin Pelle Normal</td>
<td>R$ 4,79</td>
<td>2</td>
<td>R$ 2,40</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>N</td>
<td>BIC</td>
<td>Comfort Twin Pelle Sensitive</td>
<td>R$ 4,79</td>
<td>2</td>
<td>R$ 2,40</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>O</td>
<td>BIC</td>
<td>Comfort 3</td>
<td>R$ 5,16</td>
<td>2</td>
<td>R$ 2,58</td>
<td>3</td>
<td>_</td>
</tr>
<tr>
<td>P</td>
<td>Soleil For women</td>
<td></td>
<td>R$ 6,40</td>
<td>2</td>
<td>R$ 3,20</td>
<td>3</td>
<td>_</td>
</tr>
<tr>
<td>Q</td>
<td>Lady Shaver</td>
<td></td>
<td>R$ 2,43</td>
<td>3</td>
<td>R$ 0,81</td>
<td>1</td>
<td>_</td>
</tr>
<tr>
<td>R</td>
<td>Probak</td>
<td>II Normal</td>
<td>R$ 1,35</td>
<td>2</td>
<td>R$ 0,68</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>S</td>
<td>Probak</td>
<td>II Pelle Sensitive</td>
<td>R$1,96</td>
<td>4</td>
<td>R$ 0,49</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>T</td>
<td>Pers</td>
<td></td>
<td>R$ 1,25</td>
<td>2</td>
<td>R$ 0,63</td>
<td>2</td>
<td>_</td>
</tr>
<tr>
<td>U</td>
<td>Today</td>
<td></td>
<td>R$ 1,25</td>
<td>2</td>
<td>R$ 0,63</td>
<td>2</td>
<td>_</td>
</tr>
</tbody>
</table>

Table 1 - Specification of the shavers that were used in the research.

The shavers were classified according to the following characteristics:
- Class 1: shavers that have 3 blades with pivoting head;
- Class 2: shavers that have 3 blades without pivoting head;
- Class 3: shavers that have 2 blades with pivoting head;
- Class 4: shavers that have 2 blades without pivoting head;

3.2. Characterization of the participants

The sample of the participants was formed exclusively by men. We intended to know how people experience shaving themselves. We had to access and capture their experience. These men have been grouped according to their main similarities: formal educational level, professional activity, income average. Considering this, the participants were gathered in two groups. The first group, from now on called Group 1, was composed of individuals with ages between 30 to 45 years, basic schooling level and average monthly income of U$ 240. They worked as security guards, for example, in a condominium at a high class neighborhood in Rio de Janeiro, Brazil. Good appearance was mandatory in their jobs.

The second group, called in the sequence ‘Group 2’, was composed by individuals in the age range of 20 to 30 years, middle class university students, with monthly familiar income around U$ 3000. These men are not constrained to follow strict rules concerning their appearance. They are freer shave themselves according to personal convenience and to follow in a more flexible way fashion and social group standards.

In Table 1 the groups are qualified according the Brazilian Census Bureau (IBGE) by income range and educational level.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Income range (US$)</th>
<th>Educational level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 2</td>
<td>From 1800 to 5000</td>
<td>College</td>
</tr>
</tbody>
</table>

Table 2 - Income range and educational level of the tested population.

The two groups of men were tested in order to compare the way each group has evaluated the same products.

4. Proposed Experiments

The experiments were composed by a set of tasks to be performed exclusively during a session, one participant at a time. These tasks were devised to be quickly executed during the meeting. Moreover, the eventual the participant’s doubts were solved during the meeting time.

In the beginning of the meeting, the researcher explained to the participant the aim of the research. It was said that the participant was free to express his opinions and feelings about the products, without any constraints. The researcher underlined that there was no question of right or wrong answers.

4.1. First Task

The first task consisted of a questionnaire to identify his shaving habits. The questions were:

1. Do you shave?
2. At what age have you started to shave yourself?
3. How often do you shave?
4. Besides routine shaving, for which special occasions do you shave?
5. Usually, where do you buy your shaver?
6. Which criteria do you employ to choose the product you purchase?
7. Which shaver you commonly use?
8. How many times you use the same shaver?
9. Do you use any shaving gel, foams or after-shave products?

4.2. Second Task
The second task, according to Sanders (2000), consisted of asking the participant to do three collages, associating images and words chosen from a set supplied for that purpose. Each one would answer with one of the following questions:
1. How do you feel about shaving?
2. How do you feel about your current shaver?
3. What are the characteristics you think that an ideal shaver should have?

4.3. Third Task
In the third task a set of twenty shavers of different brands, models and prices were provided and the participant was asked to comment the different aspects they liked, or not, of each product and why.

4.4. Forth Task
The forth task, a visual evaluation of the products. The participant was asked to choose the best and the worst shavers from the set. Applying Mc Donagh’s method (Mc Donagh et al., 2002), the participant then was requested to associate a personality to each product. The proposed personality profile should have characteristics of an individual, as gender, age, occupation, neighborhood he/she/it lived in, the transportation he/she/it usually take, what did on the free time, where usually bought clothes.

5. Results and Comments
5.1. Results of Task 1
The results of the interviews conducted with the participants of both groups, corresponding to Task 1, are given in Table 2.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Categories</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Do you shave?</td>
<td>Yes</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2 - At what age have you started to shave yourself?</td>
<td>15 years old</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>12.5%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>12.5%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>25%</td>
<td>17%</td>
</tr>
</tbody>
</table>
### Table 3 – Tabulation of the results for Task 1.

Comparing the answers to Question 3, the frequency of shaving is bigger in Group 1 than in Group 2. This occurs on account of personal appearance requirements in the jobs of Group 1 men.

In the answers to Question 4, Group 1 participants showed a more conservative life style.

The answers to Question 5 have confirmed the traditionalist behavior of Group 1 sample.
In relation to Group 2 participants, their answers showed that they are more opened to new products, more linked to the performance of the product than Group 1 men. These participants were more personally involved in the choice of the shaver then the members of Group 1.

The answers of Group 1 to Question 8 have revealed the quicker obsolescence of the shavers they predominantly used - BIC Comfort Twin, in relation to the ones that Group 2 unanimously used - Mach 3 Turbo, that have discardable blades.

5.2. Results of Task 2: Collages
The most chosen pictures and words by each group in response to the questions proposed in Task 2 are shown in Figures 7 and 8.

As suggested by the subjects pictured in Figure 1, for the participants of Group 1 the feelings associated with shaving are related to the familiar and social relationships. They have said that their appearance was monitored by their nearest familiars, as wives and children, who complain when they are not shaved. For the Group 1 individuals the unshaved skin is coupled with the idea of roughness and inadequacy.

In response to the second question (How do you feel about your current shaver?), the words more frequently cited were cleanliness, satisfaction, and classic. To the third question (What are the characteristics an ideal shaver should have?), the most frequent words were safety, satisfaction.
The most frequent images chosen by the participants of Group 2 are those related to sports, as rallies and Formula 1 competitions. These participants also showed concern with the relation of being shaved and good social relationship, mainly those involving women. The idea being unshaved is also connected to dirtiness. The most used word for the second request was modern, beauty and cleanliness.

The words satisfaction, pleasant, safety, precise, modern were the words more frequently chosen by the Group 2 participants to fulfill the third request (What are the characteristics an ideal shaver should have?).

5.3. Results of Task 3: Participants Comments
As the probing tools were applied, it became clear that the characteristics of products that more retained the participant’s attention in both groups were mainly form, brand and functionality. However, the priority given to each characteristic varied between the two groups and among individuals of the same group.

Some general remarks were made that seem to contradict the common sense. As an example, among the individuals of Group 1 the issue of brand was priority over price, while individuals of Group 2, the higher income group, mentioned as the most significant characteristic of a given razor model its functionality.

Group 1 individuals have recognized the models they were used to. They have rejected the models with pivoting head. This was not due to their higher price but because “this model does not enables a good control during shaving” (Participant E). On the other hand, some shavers were also rejected because “they were too light”, as a sign of very poor quality (e.g. Schick Ultrabarba). The fact of having its structure made of two different materials, in two different colors) denotes fragility, “it won’t resist when I will hit it against the edge of the sink to take the foam from the shaver” (Participant A).
These were typical assertions for Group 1:
- “This shaver doesn’t even have a brand. It must be awful.” (Participant A);
- “I have never used this model but probably it’s good because it’s a Gillette.” (Participant B);
- “The product seems to be comfortable and its brand is reassuring” (Participant D).

As a consequence, in Task 4 the participants of Group 1 generally choose as the best shaver the particular brand they used and tried to individualize the product by assigning characteristics similar to that one.

Some of the statements of Group 2 were:
- “This model is intended to women since the handle does not fit the hand position for a man to shave.” (Participant A);
- “It is difficult to clean this shaver on account of the unnecessary slots on the handle.” (Participant D);
- “A heavy handle improves the grip and enables a better shaving” (Participant E).

Summarizing the results obtained in this task, we have that the majority of Group 1 preferred shaver with rigid head because it provides a more controlled and safer shaving. Nevertheless, some of them didn’t have any objections on the pivoting head even though they are not used to them. Most of them use shavers with lubricating strips and prefer simple and traditional models. In spite of pointing out that the models that have organic forms are different and intriguing, participants that are part of Group 1 have rejected, them on account of the weight, the forward pivoting head and its higher price.

On the other hand, Group 2 participants unanimously chose as the best ones the shavers that were models top of the line. These men stated that these models were safer, more effective and satisfactory. They qualify these models as imposing, modern and well designed.

5.4. Results of Task 4: Personality of the Product.

Task 4 was the most subjective one. In spite of differences of schooling and income levels between the participants of Group 1 and the ones of Group 2, the results of the Task 4 probing revealed an agreement observed between the two groups: the association of the lower quality products to the “personality” of an aged person or a rude individual performing hard chores.

On the other hand, the members of Group 1 assigned to the best shaver characteristics linked to their own world, whose main concern was providing a better life to their children.

Participants of Group 2 have associated products characteristics according to their perception of future or, more specifically, how they would like to present themselves and expect to be perceived by society: a young successful person that lives in high class neighborhood.
6. Conclusions
Some of interesting issues were raised by the experiment. The result of the tasks presented the similarities and contrasts of expectations and of perceptions between the individuals of the two groups concerning the performance and role of a shaver.

The participants have provided good response during the probing activities. Although the participants of Group 1 were somehow uneasy at the beginning, they were receptive and collaborative, and even proud to contribute to the research. They got more relaxed as the activities went on.

The Group 1 answers (orally or visually) pointed out their conservative attitude towards the shavers. Habit counts more than convenience. Family was their main concern. Being shaved was unquestionable. It is part of their job. Shaving is also related to affection – wife and children. Being shaved is a way for them to feel accepted. Since their income is low, they are used to choose, among the models that they consider acceptable, the ones that seemed familiar and cheap.

The Group 2 participants’ answers not only attested their high economic status but also their values and life styles: social life, success and individuality. On the other hand, these participants have made a uniform choice. They were very concerned with the products they used and observed every detail. The fact of being or not being shaved was part of a personal statement related to fashion, style and social habits.

The probing techniques may help designer to get relevant data from a group of addressee. Moreover, the design team may become familiar with the points of view, expectations and feelings related to a design issue. These techniques provide an good level of communication between designer and the project addressees.

The evaluation of a product depends on some factors that are linked to cultural and social values, and of the conditions of its use, beyond its usability. The variations of time, space and circumstance determine singularities of the criteria of evaluation of the lived experience, increased by the particularity of each human being, peculiarity that increasingly we try to grasp.

Another determinative factor in the appreciation of a product is its symbolic qualities, as the memories it arouses, its brand, user’s habits. These relations and evocations carry basic aspects of user’s personal and social identity. By means of them human being reconstructs, each moment, his understanding of the world. This enables the individual to recognize his/her place in society and exist. This orientation is basic for people to know better themselves and to experience the feeling of belonging to a certain group. Therefore it is important to consider the interaction of the subjective issues and the specific attributes a product has.

Traditionally, products are designed with a view to its aesthetic appeal, its usability and/or its functions and technological qualities. However, these attributes do not necessarily give to the product the characteristics in fact expected by addressee of the project - what the product “says” to him/her, and what it “speaks” of him/herself by means of the product. Moreover, thanks to the current technology, products do not have
anymore a passive role: products can vary in the interaction process with the addressee, whose feelings and expectations and procedures may lead to a change in the product. Therefore, product design has to consider the different behaviors a product may elicit and the dynamic interaction it should have with its user.

To design it is more than simply to draw products: it is to solve dialogue issues between human being with him/herself and with other people mediated by products. Beyond the aesthetic, functional and ergonomic rules, designer must be aware of issues of meaning that are present in products.

7. References


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