PRODUCT ASSISTIVE PERSONALITY AND PROPOSAL OF COLOR PLEASANTNESS SCALE IN AXILLARIES CRUTCHES

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1   Context

Assistive Technology (ATs), according to Hogetop & Santarosa (2002) may be the development and use of equipment and resources that supplements, improve or return the residual capacities of people with disabilities. One of the assistive technologies most used as aid to mobility is the axillary crutch and, like majority of ATs equipaments, need personality and pleasing appearance. It's happens because the pleasure evoked by everyday objects can be based on different aspects that aren't only functional but also aesthetic, emotions, social values, among others (TRACTINSKY et al., 2000). Thus, this study aimed to analyze and discuss the influence of colors in the related pleasantness in axillary crutches to contribute to the knowledge about the role of color in AT products, basing future studies and applications in the areas of "Innovation", "Color" and "Inclusive Design".

2   Method

This study is characterized as transversal and attended to criteria of the Código de Deontologia do Ergonomista Certificado da Associação Brasileira de Ergonomia (ABERGO) with the approval of CEP FAAC/UNESP (Process Number 800.500/2014). Eleven male subjects with mean age of 22.3 years (SD. 2,1), all students from UNESP-Bauru campus, participated in the study. One subject reported to have used crutches for a short time before, and none reported having injury or skeletal muscle symptom. Although the axillary crutch is an assistive technology potential and common use for any people, this selection criterion was necessary to avoid evaluation based on previous experience.

As study object, we selected a Mercur® axillary crutch whose body is composed of aluminum in silver color, and underarm supports, handles, tip in gray rubber. This crutch model allows height adjustments. Pleasantness scale panels were prepared and two sets of 12 cards in blue, yellow, red, green, violet and orange, cyan, white, black and gray, pink. A set of cards was intended for metal body of the crutch, the other, to the gauntlets, underarm supports and rubber tip, which participants are guided through markings on schematic drawings on the panel itself. The pleasantness scale consisted of a horizontal table with the spaces the colors to be chosen and indicative figures of pleasantness, so the colors would be placed more to the left would be the favorite and right, undesired.

First, the participants were approached and informed about the procedures. They signed an Informed Consent Form and then held 5 steps axillary crutches on flat circuit previously marked. Then the subjects spent the color pleasantness analysis where a panel exhibited the pleasantness scale. Two sets of 12 colored cards were presented to the subjects who should to position the card on the ranking of colors displayed on a scale from 1 to 5 in accordance your preference. When finished, the subjects orally justify the reason for the chosen colors and exclusion of the other answering questions (A) "Why do you put these colors as your favorites?", And (B) "why you did not consider these colors in your pleasantness scale?".

3   Results

For the analysis of the pleasantness scale results, we assign numerical values for the scale of positions ranging from 1 to 5. The results of the color choice rate was then multiplied by the corresponding value on the scale. We realize that the colors preferred by participants for part A of the crutch, were black, gray and cyan while pink, yellow and purple colors were considered more unpleasant. The colors considered as unpleasant were laid on this point by the participants for being "too flashy". And for part B of the crutch, the metal body, the favorite colors are silver, black and gray and unpleasant were blue, red and rose again.

For the questions made at the end of the study to the question A, most participants replied that the colors chosen as favorites because "aren't to showy" still others who "follow common sense" and some attributed the choice to personal taste. The colors pink, yellow, orange and purple were selected little, not even classified as unpleasant.

It was also said by all participants that the crutch can be seen as an accessory, matching the individual costume uses, and therefore need to have sober and neutral colors, corroborating the answers to the first question. The test result and analysis of the interviews show that the crutch is seen sometimes as "cold" and not very interesting. Note that the participants observed attributes to be enhanced in the axillary crutch, although classify

disparagingly, which corroborates the studies of Soares et al (2014) regarding the need for personalization of TAs and becomes more attractive interesting.

Participants also considered that some crutch areas come into contact with the skin and the ground, which possibly explains the preference of dark colors for these areas. Light colors were classified as more unpleasant due to a practical question of hygiene. However, the choice of sober and cool colors can also be explained by the socio-cultural context of these colors, after all, male individuals have, in general, preference for this color tones.

Although the colors selected as the nicest not distinguish much of the original colors in the crutch, participants demonstrated the need for an assistive technology more inclusive, joyful and with a view less stigmatized sense. This was also explained by Tractinsky et al. (2000) to find that the products can evoke pleasure through subjective aspects, such as the emotions that color arouses. Desmet et al (2008) suggest that the allocation product personality by designers, can provide better experiences in relationship man x products as arouses to identify the person with the use object. This can dramatically improve the user experience of assistive technologies, as these are loaded with negative meaning.

4   Conclusions

As this theme is very recent and the product personality tests and color are scarce, it is proposed to be conducted new investigations, with frequent users of axilary crutches and other assistive technologies. However, it was possible to achieve knowledge about the application of colors and on the personality of crutches, allowing to base future studies in the areas of "Innovation", "Color" and "Inclusive Design". Although the study involved only male subjects, the results showed how the crutch is socially view and that other functions could represent. Introducing new demands, such as the study of other groups of individuals of different genders and different age groups.

The crutch, as well as much of what is designed for people with disabilities, need greater attention from designers and industry seeking to make them products with personality to making the user experience less unpleasant.

5   References

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