THE SEMANTIC DIFFERENTIAL FOR THE DISCIPLINE OF DESIGN: A TOOL FOR THE PRODUCT EVALUATION

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Abstract

This paper presents the results of a recent research that aimed to propose the Pragmatic Dimension's object on the Conceptual Model of Semantic Differential proposed by Osgood, which is a type of a rating scale designed to measure the connotative meaning of concepts that is used to derive the attitude towards the given object for user. The measurement of meaning is addressed in two ways: by developing a theoretical-conceptual and development through the data. The first focus involves an approach to the problem of the measurement of meaning, was offered a theoretical-conceptual framework which allowed us to establish new categories in the Semantic Space for the collecting and interpretation on the user´s expectations, from a pragmatic perspective of the object. The second option, that aimed a methodological approach, is developed a focalization more empirical in the theme study that to focusing on collecting and analyzing data, was developed a pilot study in which was observed how the meaning of a product is influenced by the Social Group to which the user belongs.

Keywords: *Pragmatic dimension, Conceptual Model, Semantic Differential, Semantic Space, Social Group.*

1. Introduction

The Semantic Differential (SD) is an instrument for measuring the connotative value of objects or images. It was created by Osgood and his associates (1957) that aimed to provide a quantitative underpinning that allows both an objective measure of psychological meaning. For this, the essential operation is the location of a concept in a series of descriptive scales between bipolar adjectives, based on which establishing the degree of similarity or disparity between different concepts.

Although the Semantic Differential was conceived in the first instance for the area of psychology, soon spread to other areas of study, because "Although we often refer to the semantic differential as if it were some kind of test, having some definite set of items and a specific score, this is not the case. To the contrary, it is a very general way of getting at certain type of information, a highly generalizable technique of measurement which must be adapted to the requirement of each research problem to which it is applied. There are no standard concepts and no standard scales; rather, the concept and scales used in a particular study depend upon the purposes of the research" (Osgood, 1957). For this reason, the semantic differential is used increasingly by the market research organizations, allowing more complete information about consumer behavior, helping designers in the analysis, evaluation and synthesis of those aspects of new products that can not be parameterized through technical specifications well established, but more concerned with how a new product is perceived by potential users (León, 2005). The importance of the Semantic Differential is that it allows to

know the semantic profile of a person or group of persons, and after obtaining this profile, you can build the concept map of how concepts are structured in this semantic space. Among the advantages to be recognized are: to be sufficiently reliable, to be valid for making decisions and predictions in marketing science, has also proved to be solid statistically.

However, a disadvantages is to study a sign only from a perspective of semiotics, according to the classification scheme used by Morris (1946). Since, the meaning that Osgood wanted to establish a measure is a psychological meaning, because as the author explains “There are at least as many meanings of meaning as there are disciplines which deal with language, and of course, many more than this because exponents within disciplines do not always agree with one another. Nevertheless, definitions do tend to correspond more or less with the purposes and techniques of the individual doing the defining, focusing on that aspect of the phenomenon which his discipline equips him to handle. Thus, the sociologist or anthropologist typically defines the meaning of a sign in terms of the common features of the situations in which it is used and of the activities which it produces. (…) we may call the relation of signs to situations and behaviors (sociological) pragmatical meaning, and the relation of sign to other signs (linguistic) syntactical meaning. Both philosophers and psychologist have tended to be more interested in what Morris calls semantical meaning -the relation of signs to their significates " (Morris, 1994).

1.1. The Research Problem

As mentioned above, for Osgood, frame of referente where the signs are located, from the profile of the Semantic Differential is absent, which is not considered a lack of the instrument and measuring device meaning, as the appearance that he and his collaborators was interested in was the psychological meaning of a term. But within the discipline of design reference framework that is something that becomes important and should be taken into account when assessing a product. Since as noted Rainer Funke, (Bürdek, 1994), "an essential condition for semiotics is the situation in context. The objects are interpreted as signs only if it is in an environment that has a particular interpretation". Therefore, the signs in practice, there is only black in situations of use. In pragmatic terms, a sign is only used in combination with other signs by members of a social group (Bourdieu, 1999).

In relation to the subject, was observed in the current literature published works have focused on the use and development of tools for measuring the Semantic Differential, and are applied to various practical problems, without modifying the conceptual model established by Osgood. For this work is essential, since it was detected that one of the disadvantages of this model for product design is to ignore the pragmatic dimension of semiosis. Therefore, to incorporate this dimension is important to know and understand the theoretical basis allowing Osgood, construction and administration of the Semantic Differential.

Osgood sought to develop a measurement instrument of meaning, with a very simple conceptual model in all studies conducted by the author, three factors emerge as dominant, appearing in most of the analysis and approximately the same order of magnitude: evaluation, potency and activity. The first dimension in the semantic space, in the evaluative factor appears, based on attitudinal variable rewards or punishments, the second is the potency factor, which refers to the power or force for a subject has a particular concept, such as length, weight, among others, and the third dimension is the activity factor, which refers to the liveliness, excitement, agitation. (Osgood, 1957). However, for the author, it remains unclear whether the factors operating in aesthetic judgments can be the same as those appearing in the current semantic judgments of linguistic signs or may be very different, as was evident in

the analysis of the Thesaurus Roget that the three major factors, evaluation, potency and activity, do not exhaust the ways in which meanings may vary. This study sought to identify other additional factors: of stability, a novelty and of receptivity. However, their appearance together with the large proportion of the total variance remains unexplained, indicates that the semantic space has a large number of dimensions (Figure 1). Therefore, the three dominant factors isolated Osgood, "appearing in most of the analyses made and in roughly the same orders of magnitude –evaluation, potency, and activity. However, it is also evident the functional semantic space is to some degree modifiable in terms of what kinds of concepts are being judged, the relative importance and relationship among factors may vary with the frame of reference of judgments"(Osgood, 1957).

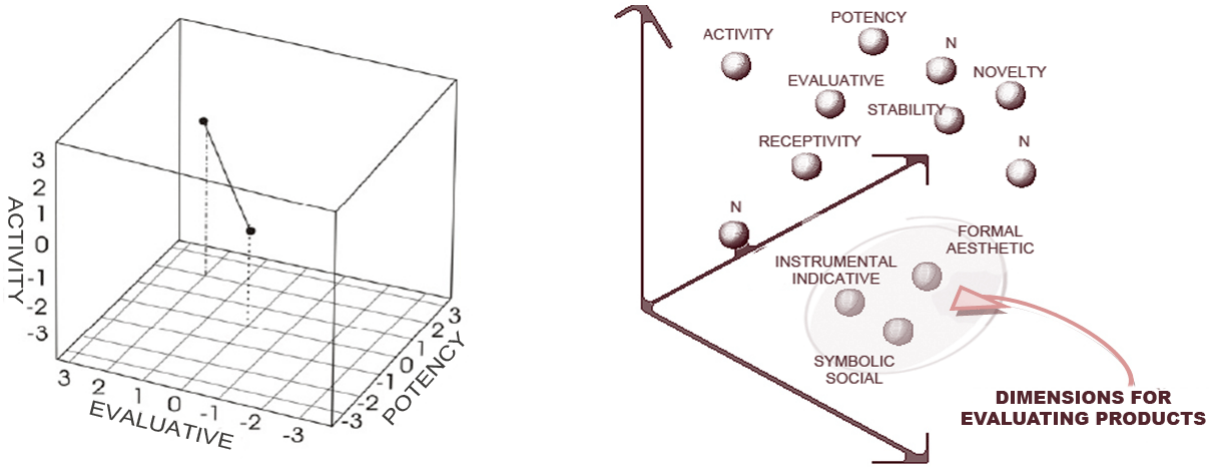

Figure 1. The semantic space. (Left) with three dimensional axes proposed by Osgood (Duarte, 2005), (Right) the number of factors that converge relatively specific in it.

These new dimensions have not yet been defined nor have studied in its entirety, which opens the possibility of research and refinement of semantic space for the various fields of application where you use the Semantic Differential.

To select a set of scales so as to be representative of the dimensions along which vary relevant processes is necessary to identify the dimensions of semantic space within this particular research, which aims at guiding technique Semantic Differential to the product evaluation by potential users before its possible acquisition where the contact is still indirect and associated with visual perception, with the aim to define their expectations, not to mention the pragmatic dimension of semiosis during this evaluation.

2. Aims

2.1. Main aim

Propose the pragmatic dimension of the object Conceptual Model of Semantic Differential resented by Osgood, for thereby allowing designers to understand the expectations of users from a product.

2.2. Specific aims

- Understand theoretical approaches describing how the user perceives a product to identify the factors that are present in the context.

- Establish categories of context present in the semantic space for the collection and interpretation of the expectations of potential users.
- Determine how the meaning of a product is conditioned by the social group to which the user belongs using the Semantic Differential.

3. Methodology

3.1. Criteria for the evaluation of the measuring instrument

It is said that the instrument is valid when it measures what is intended to measure, in this study worked with the criterion of content validity to be an approximation incorporating the context or frame of reference where the signs are located, therefore is was necessary to rethink the Conceptual Model developed by Osgood, and build new categories in the Semantic Space that are related to context, a literature review was conducted of theoretical approaches raised by some authors to ensure its validity, describing how the user perceives a product and the factors influencing the time to evaluate it, which allowed us to identify possible elements for inclusion in the Pragmatic Dimension of the object, and since those factors are able to construct new categories of Semantic Space, so we can say that these categories are valid content, ie have a theoretical basis supporting them.

The elements that characterize perceptive understanding of the product appeal to several factors. We know that emotions play an important role in the design, as well as when making a purchase decision. The emotions caused by the products can be: **instrumental, aesthetic interest, social, surprise**. But behind the emotion is always a concern or interest, they may include: goals, utility or social, **standards**, beliefs of how things should be, and **attitudes**, tastes or preferences (Desmet, 2002). However, emotions are not only important when purchasing a product, but the need is going to meet the product, Maslow postulated a hierarchy of needs, which depends on the state of development of each individual, he proposes five categories: **physical, security, affiliation, recognition and self** (Maslow, 1992). As consumers' needs also follow a hierarchy, as Jordan points out, first pursuing the **functionality,** the object fulfills a purpose or function, solves a problem, then the **usability**, the product should be easy, convenient and safe to use and finally the **pleasure**, because they do not want only functional benefits but also emotional (Mondragón, 2002). Because individuals are not only using the products for practical reasons, but to communicate with the environment, to express who they are, ie not only for their functional value but also by emotional or symbolic value. Desmet recognizes different recovery processes: **attraction**, is valued according to our attitudes, fitness, of **adequacy**, according to the target value that the object will help us achieve, of **legitimacy**, is evaluated according to our idea about how things should be, and of **novelty**, is related to our knowledge and expectations. Another factor influencing to evaluate a product, it is important to understand is how people process information received through them, studies of emotion have suggested that humans have three levels of processing in the brain: the **viscera**l, where physical appearance matters, the **behaviorist**, is the use we have with a product and the **reflective,** focuses on self-image. Each level plays a different role in the expectations placed in front of a product (Norman, 2004).

3.2. Proposed conceptual model

For the construction of categories is necessary to rely on communicative language functions of the product, posed by Gross (1987), formal-aesthetic, indicative and symbolic, because it is the product form of communication with the user (Burdek, 1994). Considering also the factors

presented above and that address the context or frame of reference that is absent in the model of Osgood. These categories are explained below may be likely present in any product.

Formal-Aesthetic Dimension. It is related to the syntax of the product, which corresponds to a cultural framework, for aesthetic perception depends on the cultural system and their respective fees and standards. Since a set of elements as diverse and seemingly inconsistent colors from syntactically for a social group, by contrast can seem as having a rate only for what it connotes to another group (Quarante, 1992). Understanding the aesthetics as the ordering “interfigural” both “intrafigural” as the object. The product uses its aesthetic-formal functions (Bürdek, 1994) to communicate in the grammar involving the formal process, the use of morphemes (lines, volumes, planes) and the ordering of morphemes in the rhythmic unit. In this dimension we value things according to our tastes and preferences of a number of noticeable features, evaluating the product as an object, where emotional arousal comes from the physical appearance (Desmet, 2002). Therefore, it is in this dimension is where first impressions are formed, the initial impact of the product and feel that it gives us a visceral level of consciousness (Norman, 2004).

Indicative-instrumental Dimension. This dimension evaluates the product according to the functional expectations that respond to human physiological needs (Maslow, 1992). That is, the product acquires a functional value through the possession of the key attributes and utilities are able to provoke an emotion instrumental in the user, helps us to achieve goals caused by a utilitarian concern and therefore are valued for their compliance with these concerns, which can be determined by the context of practical use of the object (Desmet, 2002). This dimension is present the behavioral level of consciousness, since it is the user experience you have with a product. Then evaluate its function is what allows us to do, as is their performance in carrying out these functions and usability, ie how to understand their management (Norman, 2004). This product uses the indicative functions (Bürdek, 1994) to inform the user which is the way they operate and for context functional to use is designed.

Symbolic-Social Dimension. It is expected that the product to differentiate and identify with the social group to which one belongs. Since they are symbols of a social reaffirmation and of social roles. The product gets a social value, it is appreciated for its relevance to social concerns (Desmet, 2002), which can be motivated by the needs of membership, membership in a group and survey, the stress within their social group, the have a status (Maslow, 1992). This is focused, therefore, self-image and message that a product can send to others to do so, use its symbolic functions, but differences in the dimensions referred earlier, where the communicative functions were oriented toward the product in itself, beyond the symbolic functions of the product and are produced by mental associations to groups and social contexts of use (Bürdek, 1994). The product is considered as an event, because the time factor is important in this dimension is long-term relationships, the feelings of satisfaction that occur when you take, display and use. Therefore, in this dimension is present the reflective level of consciousness (Norman, 2004) because we can only remember the past and envision the future through reflection.

3.3. Case Study

We developed a pilot for a more empirical perspective on the subject of study, which was expected to observe how the meaning of a product is conditioned by the social group to which the user belongs. As is understood, that reality is built over social processes. In this way acquires meaning in specific contexts and therefore can not be interpreted outside of these

codes. Understand or use language correctly means following the rules of use (syntactic, semantic and pragmatic) to frequent a social community (Bourdieu, 1999).

The investigation was restricted to educational games that allow the support of science outside the classroom, thereby determining whether they are consistent to users based on interest and social groups and also that these are consistent with local realities, "as a difficulty have some educational equipment is being designed without the involvement of design, as a result is obtained objects are seen as unattractive and objects away from your reality for users " (Albornoz, 2006). To select the sample of interest, the first thing was to raise the unit of analysis of the study, which in this case relate to the potential users of educational games for teaching physical science at an introductory level, ie secundary school students. To this end, it was decided to work with educational institutions that might occur during the year of this study participation in activities related to the Disclosure and Exploitation Technology Solutions EXPLORE-CONICYT Program, which follows that students were motivated by science and technology, which could be potential users to evaluate products. 8 establishments were chosen different, while allowing a representative sample of secondary school students to according to Chilean law, through the variables: the administrative unit (private, subsidized, municipal) and type of education (Scientific-Humanistic and Technical - Professional).

The survey asked the participants their views on subjects 8 products (Figure 2), of which 50% were toys and the remaining 50% were ornamental objects to the desktop. The selected images were obtained from the websites of various companies, which were sampled randomly according to the following selection criteria:

1. The products selected must meet the same function, to explain a physical phenomenon related to magnetism, although they may belong to different contexts of use, both functionally and socially.
2. Products must be publicized and marketed through the Internet, since you can only have contact with the product through visual perception through the use of photographs.
3. An additional criterion for the selection was made during the implementation of the instrument, where they asked the respondent to evaluate only two products of the 8 models, under the standards of acceptance and rejection (according to whether it was to his liking or no).

Figure 2. Selected images

3.4. Development of Semantic Differential Scale

The following describes in detail the construction of Semantic Differential and the three main stages of the same: find the appropriate descriptors, amount of material, the shape of the differential.

One of the most critical aspects of this method is the choice of appropriate descriptors to obtain the desired information about the product. Typically published work inaccurately described this aspect being often a subjective criterion of the researcher/designer to apply the method. However, this is one of the main issues in conflict, as a good selection of adjectives determine the level of successful research (Company, 2004). This search began with the previous studies, which served to select pairs of polar adjectives which were used in the evaluation of design objects (Lin, 1999; Hsu, 2000; Company, 2004, Leon, 2005; Vergara, 2006). Furthermore, reference was made to agencies such as the American Association of School Administrators and the Commission for the Safety of Consumer Products (CPSC), which establish criteria for judging the value of educational materials and toys, respectively. The first criterion for selecting the scale factor is its composition: in this case was determined 8 stops to represent each factor, trying to cover its maximum saturation factor and the minimum on the others. Also considered in connection with the case study to be performed, since the dimensions: aesthetic-formal-instrumental and symbolic purposes only, may be present in any product, and only the choice of scale descriptors can allow the differential is more specific to the particular study. (Figure 3).

According to studies, has been found advisable presentation of type II (Osgood, 1957). In which uses a sheet of paper for each of the concepts, incorporating the scale of polar targets or descriptors sequentially. Thus, management can be varied for different respondents concepts, but remains constant as the differential form (the same orden of scales and a direction of constant polarity). This form has the advantage of being easily reproducible, also the meaning of what he sees is kept constant.

FORMAL-AESTHETIC DIMENSION	INDICATIVE-INSTRUMENTAL DIMENSION	SYMBOLIC-SOCIAL DIMENSION
Attractiveness: UGLY / BEAUTIFUL	Educational value: USELESS / USEFUL	Exchange value according to social conventions: CHEAP / COSTLY
Apparent motion: DYNAMIC / STATIC	Comfort: SAFE / DANGEROUS	Temporality: UPDATED / OUTDATED
Chromatic value. Tones: COOL / WARM	Steadiness: RESISTANT / WEAK	Context of use: FORMAL / CASUAL
Spatial configuration: ANGULAR / ROUNDED	Recreational value: FUNNY / BORING	Visual identity. Accessibility: ORDINARY / SELECTIVE
Chromatic value. Intensity: JAZZY / DISCREET	Mobility: UNCHANGED / CHANGEABLE	Age range: INFANTILE / MATURE
Form: ROUGH / DELICATE	Interface Language: SIMPLE / COMPLICATED	Interest in learning: INTERESTING / IRRELEVANT
Spatial dimensionality: VOLUMINOUS / SMALL	Ergonomics (anthropometric - Cognitive): MANAGEABLE / UNMANAGEABLE	Gender of the product: MALE / FEMALE
Spatial arrangement: HARMONIC / UNBALANCED	Useful Life: PERMANENT / TRANSITIONAL	Newness: UNUSUAL / USUAL

ADJECTIVES	RATING SCALE							ADJECTIVES
Ugly	-3	-2	-1	0	1	2	3	Beautiful
Dynamic	-3	-2	-1	0	1	2	3	Static
Warm	-3	-2	-1	0	1	2	3	Cool
Angular	-3	-2	-1	0	1	2	3	Rounded
Jazzy	-3	-2	-1	0	1	2	3	Discreet
Rough	-3	-2	-1	0	1	2	3	Delicate
Voluminous	-3	-2	-1	0	1	2	3	Small
Harmonic	-3	-2	-1	0	1	2	3	Unbalanced
Useless	-3	-2	-1	0	1	2	3	Useful
Safe	-3	-2	-1	0	1	2	3	Dangerous
Resistant	-3	-2	-1	0	1	2	3	Weak
Funny	-3	-2	-1	0	1	2	3	Boring
Unchanged	-3	-2	-1	0	1	2	3	Changeable
Simple	-3	-2	-1	0	1	2	3	Complicated
Manageable	-3	-2	-1	0	1	2	3	Unmanageable
Permanent	-3	-2	-1	0	1	2	3	Transitional
Cheap	-3	-2	-1	0	1	2	3	Costly
Updated	-3	-2	-1	0	1	2	3	Outdated
Formal	-3	-2	-1	0	1	2	3	Casual
Selective	-3	-2	-1	0	1	2	3	Ordinary
Infantile	-3	-2	-1	0	1	2	3	Mature
Interesting	-3	-2	-1	0	1	2	3	Irrelevant
Male	-3	-2	-1	0	1	2	3	Female
Unusual	-3	-2	-1	0	1	2	3	Usual

Figure 3. Selection of the descriptors used (Left). Semantic Differential Scale (Right).

4. Results

4.1. General Data

The instrument was applied to 8 educational institutions, specifically to 237 people. With a 61% share of male students and 39% to the female gender.

For this study, it was necessary to segment the sample into smaller groups and homogeneous. The segmentation was performed with two looks: demographic and psychographic characteristics. This choice was based on demographic variables observed: sex, age, type of administrative unit and education in relation to the choice of the products evaluated. Most of the sample was enrolled in the 2nd year of secondary education. Therefore, the trend of age of respondents was about 14 to 15 years. In relation to the type of education establishments, 49% attended schools in a scientific-humanistic and 51% in technical-professional establishments. With regard to the administrative unit, the majority of the respondents belonged to subsidized schools, and these being 50% of the sample, 24% belonged municipal establishments and finally the remaining 25% attended private schools. Among the demographic variables, sex was considered largely conditioned the choice of product, influencing other variables, with women preferring the model 4, and men model 3, it was noted that other variables are influenced by the number of girls or boys who were present in each. Therefore, within the demographic variables identified two groups of interest relating to gender: **women and men**.

To segment the sample from psychographic variable used criteria of activity, interest and opinions on three themes: teaching materials, science and technology and learn how. On science and technology is possible to mention that 94.5% consider important technological development for the country, and 71% are motivated by scientific studies regarding the mode of learning, 88% is interested in learning to play and 77% thought experiments to understand fundamental physical phenomena. Finally, regarding the participation of activities related to science and technology such as attendance at fairs, exhibitions and participation in projects, the exhibition presents a large dispersion. Aware of this background, we performed Pearson correlation study, which allowed the sample segment, yielding an analysis that attendance at fairs and exhibitions and project participation are strongly correlated, so it is possible to say that although the sample their views and interests are fairly homogeneous are the activities that differentiate. Thus, as in the sample was possible to identify three groups of people: **participants, indifferent** and **non-participants**. After performing this segmentation, the sample was bounded to 137 respondents, given that they should be fair participants and projects. With respect to those participating, 63% are from colleges scientists/humanists while the non-participating group shows that these facilities belong to technical/profesional establishments.

4.2. Product Evaluation

Once segmented the sample under two criteria: the demographic and psychographic, we evaluated the products for different groups identified. The products evaluated were: the model 3 and 4 always play first preference, the model usually found in 7 second choice and model 5 being the highest rejection.

A way to show the results in a more illustrative, Concept Maps of the products were developed for different user groups were detected, for their construction we used a hierarchical cluster analysis to monitor the proximity between the scales of adjectives polar from dendrogram generated by the SPSS statistical software (Figure 4).

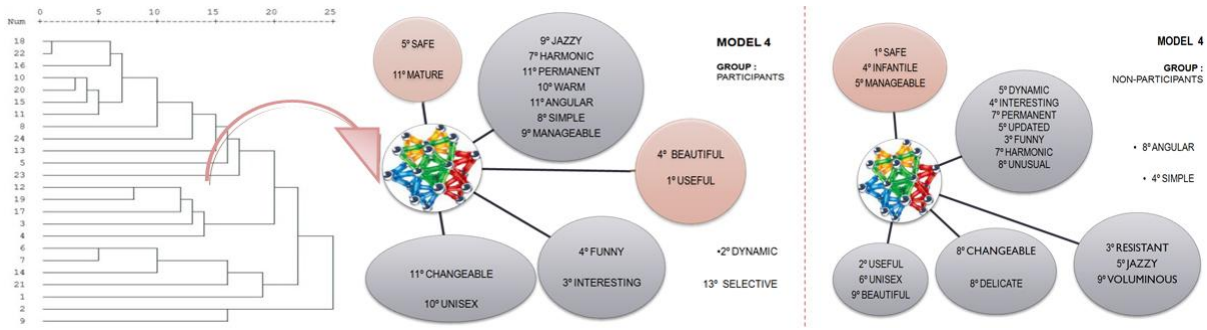

Figure 4. (Left) Dendrogram of cluster analysis results, allowing the concept mapping. (Right) In this way you can appreciate the difference in the grouping of adjectives and level of importance by the group of belonging.

Product evaluation by Activity: One the findings, relates to the hierarchy of importance they attach to the product characteristics (Figure 5). It was possible to see that the **non-participants** group given more consideration to the characteristics: comfort (safe/dangerous), educational value (useless/useful), stability (resistant/weak) and recreational value (funny/boring), corresponding to Indicative -Instrumental Dimension, ie valued at the object in the context of use. Instead the **participants** group the most important characteristics relate to apparent motion (dynamic/static), attractiveness (ugly/beautiful) where these Formal-Aesthetic character, but also takes into account aspects of other categories such as educational value (useless/useful) and interest in learning (interesting/irrelevant), Indicative-Instrumental and Symbolic-Social Dimension, respectively. Finally, the i**ndifferent** group, the characteristics of importance is the educational value (useless/useful), recreational value (funnyboring), corresponding to the Indicative-Instrumental Dimension; attraction (ugly / beautiful) and interest in learning (interesting/irrelevant), which like the previous group considered aspects of other categories such as Formal-Aesthetic and Symbolic-Social Dimension.

Model	Participants	Indifferent	Non-Participants
 Model 3	1º Useful 2º Dynamic/Static 3º Interesting 4º Beautiful	1º Useful 2º Beautiful 3º Funny 4º Interesting	1º Safe 2º Useful 3º Resistant 4º Funny
 Model 4	1º Useful 2º Dynamic 3º Interesting 4º Beautiful	1º Useful 2º Beautiful 3º Funny 4º Interesting	1º Safe 2º Useful 3º Resistant 4º Funny

Model	Participants	Indifferent	Non-Participants
 Model 5	1º Useless/Useful 2º Dynamic 3º Irrelevant 4º Ugly	1º Useless 2º Ugly 3º Boring 4º Interesting/Irrelevant	1º Safe 2º Useless 3º Weak 4º Boring
 Model 7	1º Useful 2º Dynamic 3º Interesting 4º Beautiful	1º Useful 2º Beautiful 3º Funny 4º Interesting/Irrelevant	1º Safe 2º Useful 3º Resistant /Weak 4º Funny

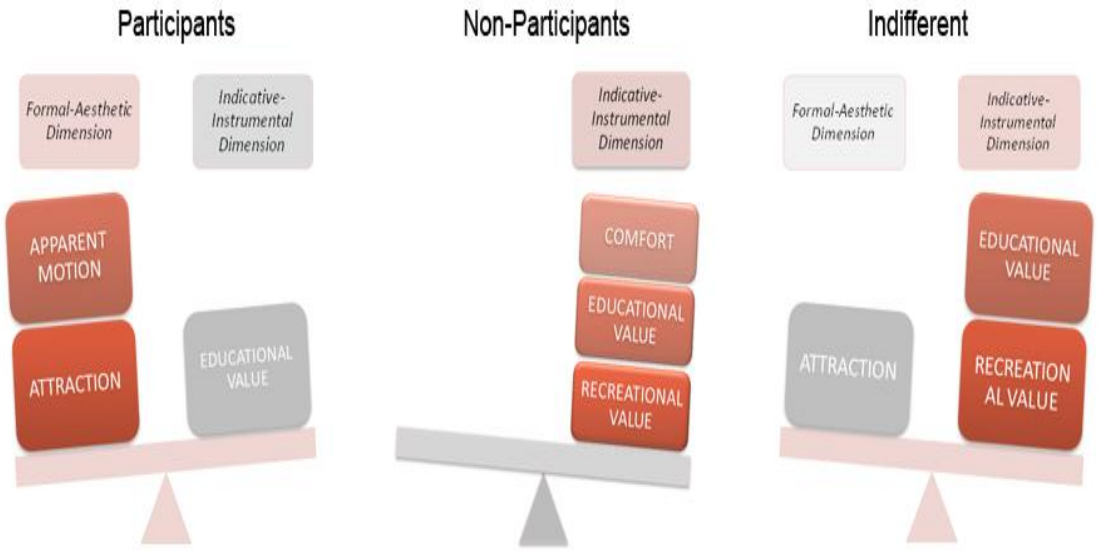

Figure 5. Products evaluated and descriptors that define them (above). Differences in the expectations they have of a product, where a privileged group one more dimension than the other place (below)

Product evaluation by gender: One of the findings that were found in the differentiation of meaning corresponds to the gender of the product. Because some products rated by the **men** were regarded as male, while **women** consider them neutral (unisex). Another result was evident, which is related to the above, is the hierarchy that such groups make to the characteristics of the product, because men give more importance to gender-related product (Figure 6). From these results, we can infer that women are more accustomed to using unisex products, however stereotypical men are using products especially those culturally specific to their gender (Vargas-Mendoza, 2008).

Model	Women	Men
 Model 3	1º Interesting 2º Beautiful 3º Useful 4º Funny 13º Unisex	1º Beautiful 2º Useful 3º Funny 4º Interesting 9º Male
 Model 4	1º Interesting 2º Beautiful 3º Useful 4º Funny 13º Unisex	1º Beautiful 2º Useful 3º Funny 4º Interesting 9º Unisex

Model	Women	Men
 Model 5	1º Irrelevant 2º Ugly 3º Useless 4º Boring 13º Unisex	1º Ugly 2º Useless 3º Boring 9º Unisex
 Model 7	1º Interesting 2º Beautiful 3º Useful 4º Funny 13º Unisex	1º Beautiful 2º Useful 3º Funny 4º Interesting 9º Male

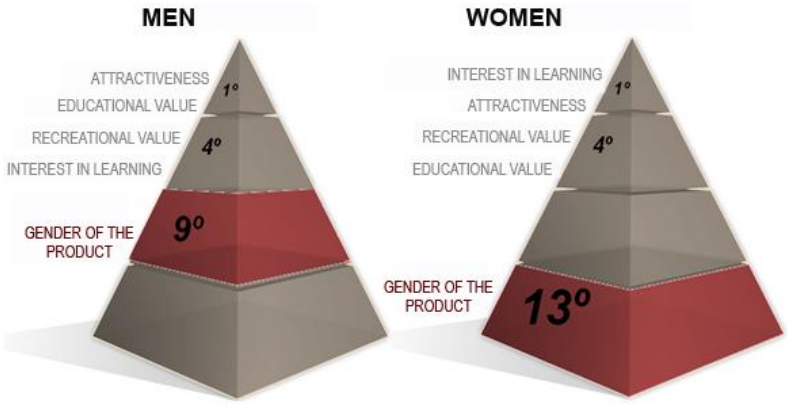

Figure 6. Products evaluated and descriptors that define them (above). It is noted that the level where the descriptor: male-female changes significantly depending on the sex of the user (below)

5. Conclusions

From the assessments made it possible to conclude that there is differences in the meaning ascribed to it in a product according to the group to which they belong, such as the significance of the gender of a product. But on the other hand, also were differences in expectations that different user groups have about a product, such as segmented by group activity, where a privileged group one more dimension than the other set. Thus, it was noted that the meaning and importance given to product characteristics is conditioned by the Social Group to which it belongs, on this point, there are very few papers in the literature to examine the Semantic Differences depending on the characteristics of users, but also the only parameters that have been studied include age, sex and level of academic or professional competence (Mondragón, S/F). Although in this study, the segmentation of users from the population perspective, considering that the most significant variable was sex of respondents, this variable can be understood as a social construction which was conditional on meeting certain stereotyped roles in society than is considered to be a man or a woman.

It can be seen so the Semantic Differential is a useful tool as a method of inquiry, in the strategic definition phase of the design process, because you can know what the expectations of users with respect to existing products on the market.

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