## RESEARCH

# Aesthetic and functional bra attributes as emotional triggers

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## Abstract

This paper aims to evaluate how bra design can trigger positive emotional experiences among users through aesthetic and functional attributes. To achieve this aim, the relationships between women and their favorite bras were investigated, since the users' preferred products tend to evoke positive experiences. Emotional experiences while using the chosen bras were accessed through five measures: Arousal (intensity of an emotional response); Valence (degree of pleasantness); Dominance (degree of control experienced by the person facing a stimulus); how attractive the chosen bra is; and agreement levels with sentences stating that each design attribute from a list (aesthetic and functional) was determinant for the choice of a certain bra as favorite. The research instrument was a printed questionnaire, which was answered by 182 women. The results indicate that pleasantness (Valence) was related to relaxation (low Arousal), but the feeling of being in control (Dominance), when wearing the chosen bra, was not connected to pleasantness. Attractiveness of the bra, relaxation and pleasantness were related to both aesthetic and functional attributes. The feeling of being in control when using the chosen bra was mostly related to functional attributes. Results are discussed to foster bra design with potential to evoke positive experiences among users.

**Keywords:** Product experience, Product emotion, Product design, Bra design, Underwear

## Introduction

Users' emotional experiences with products can be understood in a cause–effect perspective. The technical attributes of a product are the designable causes, and its effects are the emotional outcomes evoked by them. The understanding of emotional experience evoked by design triggers is a consistent topic of interest in consumer studies. Seva et al. (2007), for example, indicate that product designers may use information about user emotions, when designing products. According to the authors, sales often increase when emotions are stimulated through the manipulation of product attributes. Khalid (2006) focused on the relationship between affect and cognition, indicating that it is crucial to understand user emotions and affective necessities to design products that attain those needs. Also, in a recent study, Tonetto and Desmet (2016) were able to develop a highly consistent measurement instrument to access appraisals to cars to assist in designing loveable vehicles.

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In design studies, one of the most common approaches that has been used to understand these relationships is Appraisals Theory (Desmet and Hekkert 2007; Demir et al. 2009). Appraisal Theory states that emotions are trigged by appraisals, which are users' evaluations on how beneficial or harmful a situation is for their well-being (Arnold 1960; Demir et al. 2009; Frijda 1986). If the evaluation is positive, a positive emotion may be triggered, such as pleasure or admiration. However, if by any reason the evaluation is negative, the emotional outcome tends to be also negative, as frustration or anger (Demir et al. 2009). In this sense, Appraisal Theory allows professionals to understand likely causes of emotions that are evoked by certain products, and trigger these emotions in future projects (Demir et al. 2009; Desmet and Hekkert 2007).

In this paper, product attributes were investigated as triggers of user emotions. The product in focus is the user favorite bra, and its evaluated effect is the resulting positive emotional outcome in user-product interaction. Tsaousi and Brewis (2013) state that underwear is a neglected subject in the academic literature. The authors developed qualitative research with users, and results indicate that there are strong reasons to choose the "right" underwear, since the experience of wearing different underclothing may play an important role in shaping female identity.

Hardaker and Fozzard (1997) indicate that the historical origin of this piece of clothing is documented, but there is little information about bra design. The authors developed a survey with designers, which revealed that the development of these products is highly heuristic, suggesting that it is strongly based on the professional's point of view, rather than on a user's perspective.

Bra's shaping function is important throughout history to hide belly and hips; to separate, reduce or enhance breasts; to narrow waist; as well as to give them round or conical shape, depending on the era's customs and fashion. Sometimes it represented sexual repression, and in certain times it helped with seduction (Boucher 2008; Scott 2010; Thomas and Ormen 2010). Therefore, a bra can be important to a woman's life in its symbolic, psychological and social aspects in such a way that its practical function is not the only aim of its use (Thomas and Ormen 2010). Likewise, the degree of attractiveness of the product to its consumers is a key variable to understand how product design can trigger positive emotions.

In addition to a practical function, a woman's favorite bra may bring a series of meanings. Ergonomics is a fundamental aspect for bra designing, being responsible for its comfort and practical supporting function. Chen et al. (2011), for example, state that a poorly fitted bra may lead to muscle fatigue, discomfort and pain. The authors developed a survey that revealed that the lack of support is the most common problem in bra design, and that women with prominent breasts tend to experience fitting issues due to loose and tight bra cups. These problems can be aggravated by individual differences, such as body mass index (BMI) and age. BMI and age are known to interfere also in human thermal sensation (e.g., Tuomaala et al. 2013) and, consequently, they have the potential to affect perceptions on ergonomic attributes. Research on consumers' positive emotional experiences, therefore, is not complete if it neglects individual differences.

Thus, a bra may have different effects over users at functional and emotional levels. In this context, this research aims to map users' emotional experiences with their favorite bras and relate it to product attributes and individual differences (BMI—and age). These
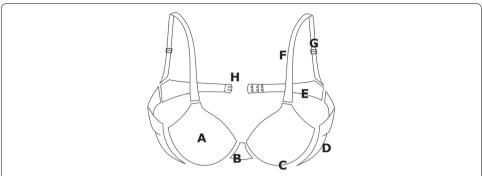
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**Fig. 1** Structure of a bra: A cup, B band, C underwire, D wings reinforcement, E underband, F straps, G strap adjustment rings and sliders and H closure

attributes are functional, which are related to the practical sustenance function of the bra (closure, wings reinforcement, underwire, underband, band, straps, and model[1]), and aesthetic (prints, tissue/texture, cleavage, embroidery, filling/shaped cup, push up/front closure, and color). The functional attributes in evaluation in this paper are indicated in Fig. 1.

Emotional experiences, in this study, are investigated in the three main dimensions of affect: Valence (the degree of pleasantness of a stimulus), Arousal (the intensity of the emotional response evoked by a stimulus), and Dominance (the degree of control experienced by the person facing a stimulus). The investigation of these emotional dimensions is based on work by Bradley and Lang (1994), which is widely adopted in research on consumer emotions (e.g., Hillenbrand et al. 2013; Serrano et al. 2013; Sonderegger and Sauer 2015; Visbal et al. 2017). The evaluation of user experience also includes perceived product attractiveness (Thomas and Ormen 2010).

At a theoretical level, this study represents a step further to understand how to trigger intangible experiences (positive emotions) from tangible design attributes. It is also relevant to the industry, since its results allow designing products to contribute to the female well-being, promoting positive emotional experiences to their users.

## Methods

### Instruments and procedures for data collection

A questionnaire organized in three different question blocks was used in the data collection. The first block contained solely identification questions (occupation, academic background, age, weight and height).

In the second block, participants were instructed to answer two scales while thinking about their favorite bra. The first set of questions pertained to the self-assessment manikin (SAM) scales (Fig. 2; Bradley and Lang 1994), which was used to access the emotional relationship between the participant and the chosen product (i.e., their favorite bra). SAM scales measure the three main dimensions of affect presented in the introduction of this paper (Valence, Arousal and Dominance). Participants rated their emotional responses towards their favorite bra in each of the three dimensions using a 9-point

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[1] Bras can be found in many models, varying in cuts and shapes, like bralette, balconette, corset, etc.

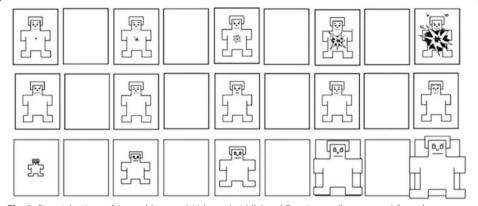Greggianin *et al. Fash Text* (2018) 5:31

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**Fig. 2** Pictorial ratings of Arousal (top row), Valence (middle) and Dominance (bottom row) from the self-assessment manikin scales (Bradley and Lang 1994)

scale. They were presented to the following question: "Observe the following figures and mark the one which represents how you feel when you are wearing your favorite bra, which you are thinking now, in the three represented situations. You can indicate the pictures represented by a mannequin or the intermediate pictures in white."

In addition, the second block of questions used a technique inspired by the product personality assignment—PPA (Jordan 2000). The mentioned technique measures perceived personality traits of a product among consumers, allowing researchers to observe how it is positioned between two extremes of a continuum. In this research, participants ranked how attractive the chosen bra was, using a 5-point semantic differential scale (attractive vs. repulsive).

The third block of questions focused on appraisals in relation to the bra technical attributes, such as cup, straps, model and closure type. Participants indicated their agreement levels in relation to the fact that each of the listed technical attributes was determinant for their choice of a certain bra as favorite. A five-point agreement scale was used (strongly disagree, partly disagree, do not agree neither disagree, partly agree, totally agree), including the choice "I don't know how to answer".

The questionnaire was elaborated in a printed form and answered individually. It took approximately 10 min to be answered.

Data collection was carried out in universities in Southern Brazil with the agreement of their department heads, following ethical guidelines for research in Brazil. Students of all age groups—undergraduates and graduates—who agreed to participate were invited by a female researcher to take part in the study. She delivered and collected the printed questionnaires, to facilitate the access to data related to such a sensitive topic.

### Sample

A total of 182 women (mean age of 33.66 years, SD = 8.37 years) took part in the study. All participants had a BMI within the range considered normal (between 18.5 and 25).

### Techniques and procedures for data analysis

All data was inserted in a database, using the IBM SPSS software. Pearson correlation analyses were used to assess relationship between SAM subscales (Arousal, Valence,

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and Dominance), and Spearman correlation analyses were used to measure relations between attractiveness ratings, BMI, age, and participants 'agreement levels related to the fact of each bra's technical attributes (functional and aesthetic) being the reason to choose a bra as favorite. Linear regression models were used to assess the role of each of the SAM scales and attractiveness ratings in predicting agreement level with each of the functional and aesthetic bra's design attributes as the method do choose a bra as favorite.

## Results

### SAM measures in user–bra interaction

In a 9-point scale used in SAM measures, higher values represent being stimulated, a pleasant usage of the product and the experience of feeling in control of a situation, while lower values mean being relaxed, an unpleasant use of the bra and the experience of not being in control of a situation. The SAM means were 3.65 (SD = 2.69) for Arousal, meaning that participants overall were more relaxed (not much aroused) by their favorite bra; 7.88 (SD = 1.08) for Valence, suggesting that they were overall pleased with their choice of favorite; and 7.86 (SD = 1.20) for Dominance, indicating that they felt that overall they were in control of the experience.

Bivariate correlation analyses between the SAM subscales revealed a negative correlation between Arousal and Valence ($r = -.64$, $p < .001$), which means that both variables move in opposite directions: the more relaxed the participant feels wearing her favorite bra (low mark in the Arousal subscale), the more pleasant is the sensation of using it (high mark in the Valence subscale). Therefore, pleasant experiences with the bra seem to be often relaxing, not stimulating.

Correlation analyses have shown that age was negatively correlated with Valence ($\rho = -.19$, $p < .05$), indicating that older users tend to have a less pleasant experience with the chosen bras. A positive correlation between age and Dominance was observed ($\rho = .35$, $p < .001$), indicating that older users tend to be more in control of the experience provided by their favorite bra.

Participant's BMI scores had a positive correlation with Arousal ($\rho = .26$, $p < .001$) and a negative correlation with Dominance ($\rho = .19$, $p < .001$). These results indicate that participants with higher BMI scores were more likely to find exciting the experience provided by their favorite bra, even though those with higher BMI scores also feel less in control of the experience.

### Relations between SAM measures and attributes of a bra

Table 1 shows the means and standard deviations of product agreement levels with design attributes of the product as motives for choosing a bra as favorite. Regarding functional attributes, the highest agreement rate was with model and the lowest was with wings enforcement. When aesthetic attributes are considered as motives for choosing a bra as favorite, the highest agreement rating was with cleavage shape and the lowest with push up.

Table 2 presents correlations between each of SAM score (Arousal, Valence, and Dominance), and participants' agreement levels with each of the technical (functional and aesthetic) design attributes of the product. A positive correlation means that

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**Table 1 Means of product agreement levels with each of the functional and aesthetic attributes of the product being the reason to choose particular bra as favorite**

| Functional attributes | Mean | SD | Aesthetic attributes | Mean | SD |
|---|---|---|---|---|---|
| Closure type | 2.86 | 1.39 | Prints | 2.30 | 1.28 |
| Wings reinforcement | 2.41 | 1.04 | Tissue/texture | 3.90 | 1.14 |
| Underwire | 3.45 | 1.26 | Cleavage shape | 4.29 | .93 |
| Underband width | 3.99 | 1.15 | Embroidery | 2.51 | 1.27 |
| Band width | 2.76 | 1.25 | Filling | 3.80 | 1.54 |
| Straps | 3.24 | 1.18 | Push up | 2.21 | 1.33 |
| Model | 4.10 | 1.17 | Color | 3.41 | 1.60 |

*SD* standard deviation

**Table 2 Correlation between SAM measures and agreement with product attributes as reasons to choose a particular bra as favorite**

| Functional attributes | A | V | D | Aesthetic attributes | A | V | D |
|---|---|---|---|---|---|---|---|
| Closure type | .14 | − .07 | .16* | Prints | .28** | − .31** | .38** |
| Wings reinforcement | − .24** | .20** | .33** | Tissue/texture | .06 | − .09 | .30** |
| Underwire | .18* | − .50** | .19* | Cleavage Shape | .12 | .48** | .27** |
| Underband width | − .06 | − .14 | .20** | Embroidery | .59** | − .54** | − .26** |
| Band width | − .49** | .43** | .27** | Filling | − .10 | − .14 | .12 |
| Straps | − .14 | .08 | .38** | Push up | − .01 | − .06 | .15* |
| Model | .16* | − .32** | .27** | Color | .05 | − .35** | .50** |

*A* Arousal; *V* Valence; *D* Dominance

** $p < .001$ and * $p < .05$

either emotional score was associated with the technical reason to choose a particular bra as favorite.

Arousal was positively correlated to the agreement that underwire and model are motives for choosing a bra as favorite, suggesting that high Arousal and these attributes are connected. Negative correlations were detected between Arousal and wings reinforcement and band width, demonstrating that the more relaxed women are when wearing a bra, the more they agree that the mentioned attributes are responsible for choosing a bra as favorite.

Valence has shown a positive relation with the agreement that wing reinforcement and band width are responsible for the bra choice, indicating that, the more pleasant wearing a bra is, the more is agreed that the referred technical attributes are responsible for choosing a bra as favorite. There is a negative association of Valence with underwire and model, indicating that, the more pleasant the situation of wearing a bra is, the less users agree that underwire and model are the causes of this experience.

Dominance has shown positive associations with the agreement that closure type, wings reinforcement presence, underwire, underband width, bandwidth, straps and model are the motives for choosing a particular bra as favorite. These results indicate that, the more in control of the situation women feel wearing their favorite bras, the more they agree that the referred functional attributes are responsible for choosing a bra as favorite.

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**Table 3 Correlation between product attractiveness with product attributes as reasons to choose a particular bra as favorite**

| Functional attributes | Attractiveness | Aesthetic attributes | Attractiveness |
|---|---|---|---|
| Closure type | .27** | Prints | .29** |
| Wings reinforcement | .35** | Tissue/texture | −.02 |
| Underwire | −.19* | Cleavage shape | −.16* |
| Underband width | −.20** | Embroidery | −.50** |
| Band width | .37** | Filling | −.05 |
| Straps | .13 | Push up | −.02 |
| Model | −.16* | Color | .05 |

** $p < .001$ and * $p < .05$

Regarding aesthetic attributes (Table 2), Arousal has shown positive correlations with the agreement that prints and embroidery are motives for choosing a bra as favorite. The more stimulated (high Arousal) women are by wearing the bra, the more they agree that the mentioned technical attributes are the motives for the preference for that bra.

Negative correlations between Valence and prints, cleavage shape, embroidery and color were detected. Results suggest that, the more excited users feel wearing the chosen bra, the less they agree that the listed aesthetic attributes are reasons for the choice.

There are positive associations of Dominance with the agreement that prints, tissue/texture, cleavage shape, push up and color are motives for the favorite bra choice. Such correlations indicate that, the more in control of the situation women feel when they wear a bra, the more they agree that the referred attributes are the responsible for its choice. A negative correlation between Dominance and embroidery was also detected, indicating that, the more in control of the situation a user feels wearing a bra, the less she agrees that this attribute is responsible for the choice.

**Product attractiveness and attributes of a bra**

The chosen bras were ranked with a mean attractiveness of 2.17 (SD = .99) in the PPA. There were a number of design attributes related to attractiveness, both functional and aesthetic (Table 3).

Since attractiveness is the lower point in the attractive vs. repulsive product personality scale, negative correlations indicate relations between how attractive the product is and the agreement that the devisable attribute is the reason to choose a bra as favorite. These correlations were observed with the functional attributes underwire, underband width, and model.

Positive correlations were observed with closure type, wings reinforcement, and band width. Thus, attractiveness of the product relate in an inverse way to these attributes, suggesting they were considered less attractive in the chosen favorite products.

Regarding aesthetic attributes, negative correlations were observed between the attractive vs. repulsive scores and the agreement that the devisable aesthetic design attributes were found in cleavage shape and embroidery. These are the aesthetic attributes related to attractiveness. Positive correlations were observed with prints. Therefore, attractiveness relate an inversely to it.

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### Attractiveness and SAM measures as predictors of product preference

Table 4 presents linear regression models using attractiveness ratings and SAM scores to show how much these variables predict each design attribute of the product as motives for choosing a bra as favorite.

Results show that the best predictors of functional attributes as reasons to choose a bra as favorite were Valence and Dominance. The negative standardized beta weight score for Valence indicates that pleasant scores were associated with closure type, underwire, and model. In other words, Valence accounted for unique variance in predicting how pleasant experiences with such functional factors played an important role in choosing a bra as favorite. A positive score was observed for band width, suggesting that participants do not attribute band width as an attribute related to pleasantness.

Dominance significantly predicted the following motives for choosing a bra as favorite: underwire, underband width, straps, and model. In three of these cases, Dominance also had the largest standardized beta weight (accounting for most variance), suggesting that the experience of control is highly taken into account for those functional design attributes.

The next factor, attractiveness rating, was a significant predictor of closure type, wings reinforcement, and underband width. The first two had a positive standardize beta weight, suggesting that closure type and wings reinforcement were predicted by higher attractiveness of the product as a motive for choosing a bra as favorite. Participants do not identify underband width as an attribute related to attractiveness.

Feelings of Arousal were only predictive of band width, in the sense that lower Arousal (i.e., relaxation) was a predictor of choosing a bra as favorite based on band width. Arousal had the largest standardized beta weight for such functional attribute, suggesting it accounts for most of the variance.

Regarding aesthetic attributes, Valence was the best predictor overall, accounting for unique variance in 5 of the 7 attributes: prints, cleavage shape, embroidery, filling, and color. The negative standardized beta weights suggest that pleasant feelings were responsible for choosing a bra as favorite based on such design attributes.

Dominance was the second best predictor, accounting for unique variance in prints, tissue, cleavage shape, and color. Having control of the attributes (Dominance) was associated with choosing a bra as favorite based on such design attributes.

Finally, both attractiveness and Arousal were associated with 3 out of the 7 attributes. Higher attractiveness ratings were predictive of choosing a bra as favorite based on prints, whereas lower attractiveness was predictive of choice based on embroidery and push up. Regarding Arousal, lower Arousal (relaxation) was associated with cleavage shape and filling, whereas higher Arousal (excitement) was associated with embroidery.

### Discussion

Users connected the choice for a bra as their favorite to technical design attributes. Therefore, it is clear the opportunity of designing a positive experience—intangible—from tangible attributes of a bra, which are functional and aesthetic, discussed hereafter.

Referring to results related to the functional attributes of a bra, wing reinforcement and bandwidth tend to stimulate relaxation (low Arousal) and pleasantness (high

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**Table 4 Linear regression using product attractiveness and SAM scores to predict agreement levels with each of the functional and aesthetic design attributes of the product being the reason to choose particular bra as favorite**

| Predictors | Functional attributes | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Closure type | | Wings reinforcement | | Underwire | | Underband width | | Band width | | Straps | | Model | |
| | β | t | β | t | β | t | β | t | β | t | β | t | β | t |
| (Constant) | | 4.34** | | 1.80† | | 6.35** | | 2.30* | | .17 | | −.49 | | 3.53* |
| Attractiveness | .49 | 5.58** | .30 | 3.45* | −.04 | −.56 | −.32 | −3.69** | .13 | 1.61 | −.01 | −.15 | −.13 | −1.58 |
| Arousal | .01 | .07 | −.14 | −1.55 | −.15 | −1.78 | −.06 | −.66 | −.29 | −3.47* | .12 | 1.27 | .10 | 1.15 |
| Valence | −.36 | −3.57** | −.10 | −.99 | −.58 | −6.37** | −.06 | −.59 | .20 | 2.09* | .07 | .67 | −.28 | −3.01* |
| Dominance | −.11 | −1.47 | .12 | 1.49 | .23 | 3.35* | .36 | 4.66** | .11 | 1.58 | .40 | 5.06** | .37 | 5.10** |
| R² | .15 | | .13 | | .31 | | .15 | | .28 | | .13 | | .26 | |
| F | 8.91** | | 7.76** | | 21.72** | | 8.65** | | 18.51** | | 7.72** | | 17.09** | |

| Predictors | Aesthetic attributes | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Prints | | Tissue/texture | | Cleavage shape | | Embroidery | | Filling | | Push up | | Color | |
| | β | t | β | t | β | t | β | t | β | t | β | t | β | t |
| (Constant) | | 5.80** | | 2.73* | | 10.08** | | 4.81** | | 4.36 | | .18 | | 2.34* |
| Attractiveness | .55 | 7.80** | −.04 | −.46 | −.01 | −.17 | −.27 | −3.75** | .00 | .03 | −.17 | −1.80† | .08 | 1.03 |
| Arousal | −.06 | −.81 | .02 | .19 | −.36 | −4.46** | .32 | 4.28** | −.22 | −2.27* | .14 | 1.45 | −.01 | −.08 |
| Valence | −.68 | −8.36** | −.15 | −1.42 | −.69 | −7.58** | −.18 | −2.17* | −.35 | −3.33* | .15 | 1.326 | −.43 | −5.02** |
| Dominance | .15 | 2.35* | .26 | 3.22* | .17 | 2.42* | −.09 | −1.31 | .11 | 1.40 | .10 | 1.144 | .48 | 7.30** |
| R² | .45 | | .07 | | .32 | | .41 | | .07 | | .01 | | .40 | |
| F | 37.31** | | 4.58* | | 22.29** | | 33.01** | | 4.56* | | 1.32 | | 30.98** | |

† $p < .10$ and ** $p < .001$ and * $p < .05$

Valence). These results indicate the relevance of breast sustenance in the choice of a bra as favorite. Therefore, its practical function is crucial to provide a positive experience to the user, which is relaxed and pleasant.

All functional design technical attributes were crucial for a user to feel in control of the situation of using a bra (Dominance). This does not only mean that a bra must be perfect in functional terms, it also means that a woman's favorite bra is not necessarily considered to be a beautiful product. It is a perfectly ergonomic model, reinforcing the role of functional attributes in terms of the positive emotional outcome of the user-product interaction.

Results reinforce that emotional experiences with the product nowadays are still connected to its modeling function, which has a meaningful role since its invention (Boucher 2008; Scott 2010; Thomas and Ormen 2010). All investigated product functional attributes need to be observed in order to design to trigger positive experiences.

Referring to the aesthetic attributes of a bra, relaxation (low Arousal) and pleasantness (high Valence) were not related to any aesthetic attributes. Results suggest that relaxation and pleasantness may not be influenced by the product's aesthetic. Considering the bra's modeling function (Scott 2010; Thomas and Ormen 2010), it is interesting to notice that attributes such as shaped cup (filling) are not motives to choose a bra as favorite.

The feeling of being in control of the experience of use (Dominance) was related to almost all the investigated aesthetic attributes, excluding embroidery and filling. Aesthetic matters to explain how much a woman feels in control, so that a bra that is considered to be beautiful by them play this important role. Specific attributes such as cleavage and push up (front closure) may be also responsible for enhancing breasts, allowing a woman to control the characteristics her own body.

Bra's symbolism has been changing throughout lingerie design history, sometimes being motive for sexual repression, sometimes for seduction. Body modeling was also a recurrent subject in the product's history (Boucher 2008; Scott 2010; Thomas and Ormen 2010), but the fact that "filling" is not related to the choice of a bra as favorite may represent a current wish of a more natural silhouette. Therefore, sustenance overcomes the bra's aesthetic function to determine a specific product as the user's favorite. Aesthetic attributes were only correlated to the feeling of control over the user's own experience (Dominance). This means that designing to trigger positive emotional experiences relies mostly on function, going against the common sense of focusing on appearance.

## Conclusions

This research aimed to map user's emotional experience with their favorite bras and relate it to designable attributes. Results indicated that it is possible to associate the tangible attributes of products (design attributes) and emotional experience. The main contributions of this research can be observed in academic and market levels.

In academia, it is important to highlight that Appraisal Theory was successful to assist in designing this research methods. By investigating users' appraisals to tangible attributes of an existing product, it was possible to explain how to trigger positive emotional experiences in future bra design.

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Results may also inspire the industry, allowing practitioners to have insights on how to stimulate positive experiences among users:

(a) Users' favorite bras are pleasant to use, allow them to relax and keep them in control of the situation, when using it.

(b) Positive emotions are triggered mainly by the functional attributes of a bra.

(c) Only the positive experience of feeling in control of their own bodies is triggered by aesthetic attributes among women.

(d) High BMI is related to poor experiences of being in control, but it can be trigger by focusing on adequate cleavage and push up (front closure).

(e) Attractiveness of the product is related both to functional and aesthetic attributes. Not necessarily the user favorite bra is attractive, but this is a relevant variable to be observed from a market point of view.

Some important limitations of the study must be highlighted. The data collection included only Southern Brazilian women, obtained through a convenience sampling. Therefore, a cross-cultural study, as well as a randomized sampling method, would be of great value to deepen the comprehension of the evaluated phenomena. Another important limitation is the method per se, since ex-post-facto experience was in focus, in other words, design attributes were not explicitly manipulated and, thus, cause-effect relationship cannot be inferred. Further studies in this field also may include research through prototyping bras based on the research results and testing the products among users.

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