Design Focus on the 'Specific Body' : The Unconscious Mindset of Fashion Designers

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국문초록

패션디자이너의 궁극적인 목적은 패션모델이나 쇼윈도의 마네킹을 위해서 의상을 제작하기보다는 타겟 고객에게 아름다운 의상을 제공함과 동시에 몸에 잘 맞고 만족스러운 의복을 창조해내는 것이다. 패션디자인에 있어서 핏(fit)은 성공적인 디자인을 위한 매우 중요한 요소라고 할 수 있다. 본 논문은 패션디자이너들의 특정한 사이즈와 바디 체형에 관한 무의식적인 마인드를 조사하기 위한 실험 연구이다. 연구 방법으로는 6명의 현직 디자이너들을 대상으로 흰색 코튼 평직 스와치(swatch)와 연필, 종이를 제공한 후 흰색 셔츠를 디자인하도록 하였으며, 특정한 타깃이나 영감 이미지를 제공하지 않은 채 15분간 진행되었다. 이 실험 연구를 통해서 패션디자이너는 대체적으로 스몰(small)사이즈 바디와 아워글라스(hourglass) 바디체형을 생각하며 초기 디자인 아이디어를 발현시켜 나가는 것을 확인 할 수 있었다. 실험이 끝난 후 설문 조사를 통해, 다른 사이즈와 체형일 경우 디자인을 변형하겠다는 질문에 대부분의 디자이너들은 체형 보완을 위해 디자인을 바꾸겠다고 답변하였다. 이러한 디자인 마인드의 문제점을 현 디자인 시스템과 전통적 디자이너 프로세스와 연계하여 고찰해 보았으며, 디자인 교육과 테크널러지의 보완을 통한 해결책을 제안하였다

Key words : Fashion Designer, Mindset, Fit, Body Size, Body Shape
주제어 : 패션 디자이너, 마인드, 핏, 바디 사이즈, 바디 체형

I. Introduction

The ultimate goal of the fashion designer is to create a well-fitted garment and simultaneously to provide an aesthetically successful design for targeted customers rather than to design a garment for a fashion model or a mannequin in a display window. Fit is a critical factor to accomplish good design. A garment that looks good on the wearer essentially must be one that fits the wearer well. Only when fit is fully optimized, can a garment be considered as good design aesthetically. The designer also utilizes various silhouettes and design details to achieve good design. And design skills are often evaluated by how well design details are used in order to create good look and good fit. Numerous studies (Pisut *et al.,* 2010) have reported that fit problems in women's ready-to-wear are significantly related to body size and shape, in these studies but problems were mainly evaluated from the consumer's perspective rather than the designer's perspective. Few researchers report from the designer's viewpoint. McCormack addressed the issue that the fashion industry is ignoring the changing shapes of women's bodies, and designers and manufacturers still insist on making clothes that fit the traditional hourglass figure, when women's body shapes are more likely to be top-heavy, rectangular or pear-shaped. This paper seeks to identify the fashion designer's unconscious mindset related to a specific body size and shape, despite the fact that wearers in reality have various ranges of body sizes and shapes.

II. Method

Pilot Test

The purpose of this pilot test is to discover the tendency of the fashion designers' mind towards to one specific body size and body shape. The hypothesis is that the designer unconsciously generates the design idea only targeted to a small body size and an hourglass body shape for any given design task. Six experienced fashion designers were recruited for this pilot test. Each designer was the given a design task which required to design and hand-sketch one simple white shirt for women's wear. Materials supplied to each designer, a piece of paper, a pencil or a pen (depending on the designer's preference), and a white plain cotton fabric swatch.

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No inspiration photos were provided. Designers were expected to use their own imaginations and thoughts for inspiration. Designers were not given any specific size measurements or croquis figures for illustration. Any additional questions for designers related to size and body shape at the pre-test stage were not proposed. If a designer asked questions about body size or shape, they told to think and design whatever they typically do. A maximum of 15 minutes were given for finishing this task. After finishing the 15 minute design session, designers were asked to fill out a 5 minute post-questionnaire. Designers were informed about the purpose of the study in detail after completing whole test.

III. Result

1. Participants' characteristics

Among six designers, 4 were female and 2 were male designers. All designers were educated in institutes, located either in United States or aboard, attending 4 years or more, and majoring in fashion design or apparel design. Total years of experience in the fashion industry varied from 3 years to 8 years. Most of the designers are currently working for companies targeting contemporary women's wear in New York City, NY. One designer, who is working for a kids wear company, was trained mainly as a women's wear designer in a institute for 8years. Designers were classified as expert designers since all of them have been involved in design work at least 9 years.

Table 1. Participants' characteristics

Subject#	Gender	Experience (yrs.)	Institute (yrs.)	Current Target Customer
1	F	5	4	Women's contemporary
2	M	5	8	Kids(new born-boy/girl)
3	F	3	5	Women's contemporary
4	F	3	6	Women's contemporary
5	M	4	5	Women's contemporary
6	F	8	9	Women's contemporary

2. Targeted body size and body shape

A small or x-small body size was selected as suitable body size for the initial shirt designed. Three designers chose a small size and 2 designers chose x-small. A medium size was selected by one designer who was possibly more conscious of size issues because of some experience as a technical designer. 'X' shape (hourglass body) was the only selection for the suitable body shape for all of the designs.

Table 2. Targeted body size and body shape

Subject#	Suitable size for shirts	Suitable body shape for shirts
1	S	'X' shape hourglass
2	XS	'X' shape hourglass
3	XS, S, Petit	'X' shape hourglass
4	M	'X' shape hourglass
5	S	'X' shape hourglass
6	S	'X' shape hourglass

3. Design styling changes for different body shapes

All designers indicated that they would change the design style if the shirts were targeted for different body shapes than the 'X' shape hourglass body. The 'H' shape (Rectangle) and 'O' shape (Apple) were frequently chosen as unsatisfied body shapes for their shirts for which designers would choose to modify the design style of their shirts. Answers to how the design would be changed were various and can be categorized into 3 groups: ease of garment, silhouette changes (dart, tucks and belt), and adding visual illusions (pockets and stitching). The designer would changes the ease of garment to add extra room for 'O' or 'H' shape body for comfortability. The designers would intentionally create the X silhouette shirt by adding tightening designs at the waist area which they think as an attractive body shape. Adding visual illusions would disperse gaze of the body shape. Verbal explanations were given supporting appropriate

Table 3. Styling changes regarding body shape changes.

Subject#	Will to change design detail	Styles to change	Customer's body size or shape
1	Yes	More darts or belt at waist area	'H' shape
2	Yes	Lengthen shirts or add vertical stripes	'H' or 'O' shapes
3	Yes	Change pocket design or size	Large size
4	Yes	Length, add more detail (stitching, tucks), shaping (less fitted or more fitted)	
5	Maybe (yes)	Width of sleeve, length, silhouette	Large size
6	Yes	Delete front dart	'O' shape

changes to details on designed shirts for alternate body types. Subject no. 5 was reluctant to change his design but finally he modified it and said, "I like my design now but my shirts are not good for the one who is large size. It would look terrible. That is why I want to change."

4. Awareness of various body shapes

Greater awareness of various body shapes in the initial design stage appeared to be important to all designers. Most designer agreed that customer body shapes significantly affect choices of their design features especially in the waist area and bicep. Participants believed that designers have the obligation to consider customers' body sizes and shapes when designing the garment. However, one designer answered that applying body shapes when generating design ideas is not an easy process for him since his mindset had been established for a long time and continuously drilled to design for a specific size and body shape. All designers answered that preserving their original ideas for different body sizes and body shapes is necessary. However, few designers suggested a solution for how to achieve this. One designer said that it is only possible to design for different sizes and shapes for custom-made garments. Two designers answered that design details and fabrics (i.e. stretch fabrics) can be adjusted depending on the customer's size and body. Nevertheless, answers were ambiguous indicating that designers did not have many ideas about how and at which stages of the fashion design process design details and fabrics should be adjusted to accommodate different sizes and shapes.

IV. Conclusion and Discussion

This pilot test indicates that fashion designers unconsciously think of only a small body size and an hourglass body shape when generating initial design ideas.

1. Suitable Design Styling

Designers acquire knowledge of how to create good design by employing visual design elements: line, space (2 dimensional space), shape, light, color, texture, pattern, change (emphasis, gradation and transition), rhythm, contrast, balance, and scale (Davis, 1996). Davis states that depending on selections and combinations of visual elements, visual illusion can be created that affect the creation of an improved look for a certain body shape and figure area. Expert designers develop the tactic knowledge to combine those elements harmoniously through experience, and are able to edit body shape effectively by using camouflage and highlighted elements that are suitable for each body size and body shape. Mathis and Connor(1993) introduced six body shapes, rectangle, oval, figure-eight, hourglass, triangle and inverted triangle, and proposed methods to create alternate silhouettes appropriate for each natural body shape.

In this pilot design task, most designers created fairly fitted white shirts and expressed the desire to change design details related to body shape when shirts are to be used for different body sizes and shapes. Design details proposed, that are more suitable for different body sizes and shapes other than 'small' and the hourglass shape, can be categorized into three types: adding ease or length to the garment, changing the silhouette, and adding details for visual illusions. Designer's concerns were extra ease for a certain area, such as the waist or biceps and they all indicated the necessity attempt to create an hourglass silhouette for other body types by using visual illusions. Designers wished to change design details for camouflaging the natural body shape and creating an hourglass silhouette by adding darts or belts, or to create a visual illusion by applying pockets or decorative stitching.

2. Body Shape and Population

One research study found that only 21 percent of women had an hourglass figure while over 40 percent of women were pear-shaped (Simmons et al., 2004). In the pilot test, all designers unconsciously designed shirts for the hourglass body, which is a critical discrepancy since a small percentage of the population is classified in that group. Understanding the customers' body shape is essential for designers to create appropriate design ideas.

3. Grading

Designers, retailers and manufacturers currently build their own sizing systems and apply proportional grading rules to produce a full range of sizes around stereotypical consumers. Key activities of apparel development and production process should be provide for the customer's fit by understanding the

relationship between target population, sizing system and the fit model (Bougourd, 2007). In the current fashion industry, the base or master size pattern is specifically made for a particular type of figure: mostly stereotypical consumers of their own brand. The master pattern block is adjusted and tried on a fit model as fashion silhouettes change (Workman, 1991). Then grading is processed by proportionally increasing or decreasing a master pattern according to a set of body measurements of customers (Price and Zamkoff, 1996).

Despite all endeavors towards to better-fitted garments in the apparel development stage and production process, the overall satisfaction with garments, which will lead to the customers' purchase, will not succeed if design features are not suitable for the body size and shape. With the success of technically well-fitted garment on a fit model, garments still can be less attractive because of a lack of consideration of body size and body type in terms of the original design features. For instance, a garment with an extended shoulder design will not work well on inverted triangular body shape regardless of technically good fit. An appropriate use of design details and the successful fit of different body sizes and shapes are inseparably related to one another.

4. Limitation

Convenience subjects were selected for this pilot test. All of the subjects were currently working in New York City based fashion companies. Therefore, the results collected may not representative of all the population (all designers in United States) and the peculiarity of New York City, where the slimmer body shape is overtly supported, may affect the result in the unconscious selection for the body size and shape. A selection of alternate sizes for previously designed shirts was not given as size measurements. Instead, size ranges from XS to XL and petite were given as multiple choice selections. Since each target market and company establishes his or her own size ranges in industry, these specified sizes do not signify the same measurements. Although two subjects may have answered the same size, they may not imply the same measurements. Further post-interview, which could contain descriptions of design intensions, achievable silhouettes, and a second design task that illustrates actual design changes in detail for each body size or body shape, would be valuable for further in-depth research.

5. Implication

The cause of the unconscious designers' mindset towards to a specific body size and shape during the design process can be hypothesized two different ways: problems in the design method, and the design process.

The conventional design method influences the designers' mindset. A specific size of body and body shape have been utilized for generating initial design ideas in educational institutes and in the apparel industry. Regardless of some attempts to change to updated size measurements in designers' mannequins (i.e. Alva products of Cornell University and North Carolina State University), many designers in education and industry still begin with a hourglass body shape and small size body form made based on out-of-date size measurements for generating designs (McCormack, 2005). Secondly, the use of pre-determined fashion drawing figures croquis could be another factor that limits the designer's thoughts towards to a limited range of body sizes and shapes. In the design training of most design institutes, student designers utilize pre-drawn flat body sketches for creating rapid design ideas (Riegelman, 2006). Furthermore, the trend of using elongated and slimmer fashion illustration croquis figure may affect designers' thoughts and process. Danielson(1989) proved that the chronology of the changing fashion figure ideal in fashion illustration is influenced by and is a reflection of the two major factors of the spirit of the times and the characteristics of each era's fashionable silhouette and apparel. Based on her states, the ideal body shape in contemporary people's mind is a slim and 1/9 head-proportion figure.

In the design process, most designers in United States of uses a size 8 fit model with the following measurements: 5feet, 8inches tall with a 34 1/2 inch buntline, 26-inch waist, and 37-inch hips (Workman, 1991). Systematically, the scope of investigation regarding body sizes and shapes is not considered in the industry. Therefore, the designer's mind has been focused on a specific body size and shape. In addition, final garments are often reviewed between design team and other teams within a company as a form of small runway show. Pre-selected final garments are commonly evaluated on a fitting model with a similar body size and shape. In order

to be selected as a final product, garments need to fit and look good on the fit model. Other possible causes may exist for the limited designer's mindset or body sizes and shapes. This topic may need to investigate in further researches within apparel design and the field of sociology.

6. Solution for the Future

The apparel design industry and educational institutes should encourage designers to be aware of various body sizes and body shapes. Ignoring costumer's body sizes and body shapes when designing garments will decrease satisfaction of customers, resulting in a unsuccessful business. The unconscious hope in most designers mind is to design fascinating garments for a beautiful well-proportioned human body. However, designers need to perceive the reality and be concerned with the actual population, and the educational institute needs to educate student designers actively about this topic.

Technology makes it possible to design for accurate custom fit for individuals. Kwong (2004) states that most apparel CAD systems including Gerber Technologies have several preparatory activities in common which will allow automatic pattern alteration based on individual measurements. 'Made-to-measure' (MTM) software is available from Gerber, Lectra and other commercial CAD/CAM garment systems that can generate customized made-to-measure patterns through digitizing and grading and then plotting the resultant pattern piece. Gerber MTM software has the capability to specify body form by measurement and can trigger specified design style options. These formulae in MTM system allows the selection of design features or adjustments depending on body measurement and the body size and shape. If body measurement of population is standardized in CAD system by body size and shapes, good design can be achieved by selecting appropriate design features for certain body sizes and shapes systematically

Note

This study was originally planned and conducted in New York, United States. Therefore the standard size and references are based on the sizing system in US.

References

1. Bougourd, J. (2007). Sizing systems, fit models and target markets in Ashdown S.P.(Ed.), Sizing in Clothing: developing effective sizing systems for ready-to-wear clothing, Cambridge: Woodhead Publication in Textile.
2. Davis. M. (1996). Visual Design in Dress. Prentice Hall.
3. Danielson, D. R. (1989). The Changing Figure Ideal in Fashion Illustration. Clothing and Textiles Research Journal, 8(1), 35-48.
4. Kwong, M. Y. (2004). Garment Design for Individual Fit in Fan J., Yu W., and Hunter L.(Eds.), Clothing appearance and fit: Science and technology, Cambridge, Woodhead Publishing Limited.
5. Mathis, C. M., and Connor, H. V. (1993). The triumph of individual style. Timeless Editions.
6. McCormack, H. (2005). The shape of things to wear: scientists identify how women's figures have changed in 50 years, The Independent. 21, November.
7. Pisut, R. G. (2001). Fit preferences of female consumers in relation to body shape, body cathexis, clothing benefits sought and fit problems. Unpublished doctoral dissertation, Auburn University.
8. Price, J., & Zamkoff, B. (1974). Grading techniques for modern design. New York: Fairchild Publications.
9. Riegelman, N. (2006). 9 heads: A guide to drawing fashion. Los Angeles: 9 Heads Media.
10. Simmons, K., Istook, C., and Devarajan, P. (2004a). Female figure identification technique (FFIT) for apparel Part I: Describing female shapes, Journal of Textile and Apparel, Technology and Management, 4(1),1-16.
11. Workman, J. E. (1991). Body Measurement Specifications for Fit Models as a Factor in Clothing Size Variation. Clothing and Textiles Research Journal, 10, 1, 31-36.