# A Comparison of Korean and American Consumers' Preference on Formal Wear Fabrics 

Cheunsoon Ahn ${ }^{1}$, Sook-Ja Lim ${ }^{2}$, Yoon Yang ${ }^{3}$, Seung-Hee Lee ${ }^{4}$ and Sharron J. Lennon ${ }^{3}$<br>${ }^{1}$ University of Inchon, ${ }^{2,3}$ Ewha Woman's University<br>${ }^{4}$ University of Ulsan, ${ }^{5}$ The Ohio State University


#### Abstract

This research investigated the difference in fabric preference over formal wear attire of 1999 Spring/Summer season between Korean and American female consumers. 25 Korean and 25 U.S.A. fabrics were used as fabric samples, and the respondents for the survey included 50 Koreans and 50 Americans in the 20 s and 40 s age groups. All six population groups showed similar dislike rankings toward the total fabrics ( $n=50$ ). When the Korean fabrics and the U.S.A. fabrics were considered separately, the 20 s and 40 s age groups, especially between Korean 20 s and Korean 40 s, showed significant similarities in the dislike rankings. When the dislike preferences between Korean fabrics and U.S.A. fabrics were examined for different population groups, all the groups showed sontewhat similar dislike rankings and in all cases U.S.A. fabrics were distiked more than the Korean fabrics. The most apparent difference in the physical characteristics of disliked fabrics was observed in fabric color. The Americans, especially the 40 s age group, disliked fabrics with dark compound colors, whereas the Koreans in all age groups dislike fabrics close to bright pure colors.


Key words : fabric preference, women's formal wear, dislike rankings, Koreans, Americans.

## I. Introduction

Textile fabrics are part of an important component of apparel industry, which forms the structural as well as aesthetic basis of a fashion apparel. A textile fabric has a direct influence on texture, hand, wearability, and different physical functions of an apparel. Color or pattern, which are often the first criteria for the purchase decision, are also inherent in the fabric itself.

With the current trend of minimalism in apparel design, a fabric itself can become the design inspiration and the way of discriminating one brand from another ${ }^{1)}$. Textile fabrics are the key factor of success not only within the domestic market but also in the global market place. If our apparel companies can produce apparels which fit into the taste of foreign consumers and the domestic consumers using the Korean fabrics, the synergy of market success can be doubled. To encourage this we must understand

[^0]The authors wish to acknowledge the financial support of the Korea Research Foundation made in the program year of 1998.
' S. H. Lee \& H. J. Son, "Investigation of the effect of textile material on appare! design," Journal of Living Culture, 8 (1994): 185-216.
the difference and similarities of consumer's taste in domestic as well as foreign market.

As part of an international cooperative research, this research was aimed to compare the consumer's fabric preference between Korean and American females. The purpose of this research was to analyse the difference in fabric preference over women's formal wear attire of 1999 Spring/Summer season between Korean and American consumers in the 20 s and 40 s age groups. In this research women's "formal wear" is defined as 'suits' which comprise of a set of 'jacket and skirt' or 'jacket and pants' made with same material. Due to the massiveness of data, this paper deals only with the 'dislike' preference, and the 'like' preference is presented elsewhere ${ }^{3}$. It is hoped that the result of the two papers can provide some ideas of basic strategies for apparel export to U.S.A. and also encourage the competability of our national apparel brands over the many U.S. apparel brands launched in Korea.

## II. Research Method

Fabrics which were used by the apparel manufacturers as women's formal wear materials during the 1999 Spring/Summer season were sponsored by several leading fabric converters of Korea and U.S.A.- 50 fabrics from Korea and 25 fabrics from U.S.A. 25 U.S.A. fabrics were all included in the study. From the 50 Korean fabrics, 25 fabrics were selected based on the fiber composition and color using the stratified sampling method. Specifically, 50 fabrics were grouped into 7 color groups, black, grey, pink,
blue, green, white, and beige and the proportion of the numbers in each color group was calculated. Next, types of fiber compositions found among the 50 fabrics (for example, wool $100 \%$, cotton 100 , wool/polyester, wool/nylon/ rayon, etc.) were all listed, and the proportion of each type among the total composition types were calculated. For the actual sampling procedure, 25 samples were selected from the 7 color groups following the original proportion of color groups. When the fabrics were selected within each color group, the above fiber composition frequencies were used as a guideline for the priority measure. That is, giving priority in selection for the more frequent fiber composition type. Following such scheme of fabric selection, the total sample size for the fabrics were $50 ; 25$ Korean fabrics and 25 U.S. fabrics.

For the 50 fabric samples, basic characteristics such as fabric density, thickness, weight, and color were measured following the KS test procedures; KS K 0514 for fabric weight, KS K 0506 for fabric thickness, and KS K 0511 for fabric density ${ }^{3}$. T-test was conducted to examine whether there were mean differences between the Korea and U.S.A fabrics in weight, thickness, and density. Fabric color was divided first into solid, melange, stripe, and check groups according to visual characteristics. Then the color of each fabric was quantitatively measured using the Minolta 300 Colorimeter to obtain the tristimulus values. Chromaticity Diagrams were made for each fabric group based on the $\mathrm{x}, \mathrm{y}, \mathrm{z}$ coordinates of individual fabrics ${ }^{4,5,6)}$.

A questionnaire which was designed to mea-

[^1]<Table 1> Fabric Preference Survey Questionnaire(shortened version)
The following questions are designed to ask your fabric preference on the formal wear. Please observe each of the 50 swatches provided to you by looking, touching, stretching or using other senses. Do not exceed the observation time more than 10 seconds per each swatch.

1. Please put the swatches you would WANT to use for the formal wear on the <Like> card. Please put the swatches you would NOT WANT to use for the formal wear on the <Dislike> card. For those swatches which you do not know whether you would want or would not want, please put them on the <Neutral> card.
[If you are done, please go on to the next question on the following page.]

## page break

2. For those swatches which you have placed on the <like> card, please rate the preference of each swatch as the fabric for the formal wear. Inside the appropriate cell of the table below write down the swatch number and its preference rate, 1 for 'slightly like' and 5 for 'strongly like.' Higher number represents higher preference. An example of the recording is shown below. Each swatch should receive only one rating.
<Preference Rate>
1
$1 \cdots-\cdots-\cdots$
2
----.............
3


5
|-------------- |
strongly like
slightly like
<Example>

| swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate |
| :---: | :---: | :---: | :---: |
| 13 | 2 | 34 | 5 |


| swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

## <Table 1> Continued

3. For those swatches which you have placed on the <Dislike> card, please rate each swatch the degree of dislike as the fabric for the formal wear. Inside the appropriate cell of the table below write down the swatch number and its dislike rate, 1 for 'slightly dislike' and 5 for 'strongly dislike.' Higher number represents higher rate of dislike. Each swatch should receive only one rating.

## <Preference Rate>


<Example>

| swatch no. | preference rate | swatch no. | preference rate |
| :---: | :---: | :---: | :---: |
| 10 | 5 | 41 | 2 |


| swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate | swatch <br> no. | preference <br> rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

page break
4. Now you have divided into 3 groups based on your preference and rated preference for the fabrics which belong to <Like> and <Dislike> groups. What are the factors that have affected you when you categorized each swatch on the groups and you ranked the preference? Please write down your opinions or feelings freely inside the box below.
$\square$

- Thank you -
sure fabric preferences according to the 5 point Likert scale was administered to 50 Korean females living in Seoul, Korea and 50 American females living in Columbus, Ohio during May and July of 1999. A sample of the questionnaire is presented in <Table 1>. 50 subjects within each country included 20 s and 40 s age groups; 25 subjects in the 20 s and 25 subjects in the 40s age groups. The fabric samples were cut into $10 \mathrm{~cm} \times 10 \mathrm{~cm}$ square and the swatches were arranged in a random order. The respondents were asked to place each fabric swatch on the "Like," "Neutral," or "Dislike" cards according to their preference as the fabric for women's formal wear. For the fabric swatches in the "Like" and "Dislike" category, the respondents rated the degree of their like or dislike preference according to the 5 point Liker scale; 5 being the most like or most dislike score. The respondents then listed the reasons for their like or dislike preference in the subjective category. In this research, the data collected for the "Dislike" category are discussed only.

The data were analyzed using the SPSS 9.0 and MS EXCEL software. T-test was conducted to investigate the differences in the means of physical characteristics between the most disliked Korean and American fabrics, and the differences in the mean dislike score between population groups. The Spearman Rank Tests were conducted to compare the differences in the fabric preference ratings between different subject groups ${ }^{7}$. Content analysis was used to analyse the subjective data quantitatively ${ }^{8 \sim 10)}$.

## III. Results and Discussion

## 1. Fabric Characteristics

## 1) Fiber Composition

<Fig. 1> displays the types of fiber content in Korean and U.S.A. fabrics. There was a large proportion of wool and wool blends in Korean fabrics compared to the U.S.A. fabrics. There was a larger usage of polyester in U.S.A. fabrics than in Korean fabrics. Rayon and silk was used more in U.S.A. fabrics than in Korean fabrics. In Korean fabrics blend of 3~4 fibers were often found whereas the U.S.A. fabric had mostly 2 fiber blends.

## 2) Fabric Structure

Among the 25 Korean fabrics 8 fabrics were knitted fabrics and the rest were woven fabrics. There were no knitted fabrics among the U.S.A. fabrics. Plain weave structures were most frequent, 13 among the Korean fabrics and 18 among the U.S.A. fabrics including the rib weave, one of the plain weave variation. The rest of the fabrics were mostly twill, twill variations, and the crepe.

## 3) Weight $\cdot$ Thickness $\cdot$ Fabric Density

<Table 2> shows the result of $t$-tests on weight, thickness and density of Korea and U.S.A. fabrics. There were significant differences in the mean weight and mean fabric density between Korea and U.S.A fabrics at alpha . 05 . As a mean, the Korean fabrics were lighter in weight and had more dense fabric structure than the U.S.A. fabrics. However, there was no significant difference in the thickness between the two fabric groups.

## 4) Color

In both Korean and U.S.A. fabrics, solid

[^2]| Fiber Type | Mix | Korea | U.S.A |
| :---: | :---: | :---: | :---: |
|  |  | Fiber Content | Fiber Content |
| Wool - | 100\% |  |  |
|  | Mixed |  |  |
| Polyester | 100\% |  |  |
|  | Mixed |  |  |
| Rayon | 100\% |  |  |
|  | Mixed |  |  |
| Cotton | 100\% |  |  |
|  | Mixed |  |  |
| $\begin{aligned} & \text { Silk } \\ & \text { sikN } \end{aligned}$ | 100\% |  |  |
|  | Mixed |  |  |
| $\begin{aligned} & \text { Linen } \\ & \text { 脒 } \end{aligned}$ | 100\% |  |  |
|  | Mixed |  |  |

<Fig. 1> Types of Fiber Content in Korea \& U.S.A. Fabrics
<Table 2> Result of T-Test on the Physical Properties of Korea and U.S.A. Fabrics

| Property ${ }^{1}$ Statistics | Fabric <br> group | N | Mean | Standard <br> deviation | t | df | sig. $^{2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Weight (g) | Korea <br>  <br> U.S.A. | 25 | 25 | 1.6992 | 0.5741 | -2.042 | 48 |
| Thickness (mm) | Korea | 25 | 0.3829 | $0.047^{*}$ |  |  |  |
| Fabric Density | U.S.A. | 25 | 0.4029 | 0.4829 | -0.516 | 48 | 0.608 |

${ }^{1}$ Weight II and Thickness II were tested after excluđing Korean Fabrics \#28 and \#45.
${ }^{2}$ values with * are significant at $\alpha=0.05$

| Frequency | Korea |  | U.S.A. |  |
| :---: | :---: | :---: | :---: | :---: |
| Color Type | N | \% | N | \% |
| Solid | 12 | 48 | 14 | 56 |
| Melange | 11 | 44 | 5 | 20 |
| Check | 0 | 0 | 5 | 20 |
| Stripe | 2 | 8 | 1 | 4 |
| Total | 25 | 100 | 25 | 100 |

color was most frequently found, $48 \%$ of Korean fabrics and $56 \%$ of U.S.A. fabrics (Table 3). However, among Korean fabrics about $44 \%$ were in melange color, and in U.S.A. fabrics $20 \%$ were melange and $20 \%$ were check pattern. Check pattern was only found among the U.S.A. fabrics. The Chromaticity Diagram (figures not included due to space) of the Korean fabrics were surged toward the coordinates of the standard light source C ( $x=3101, y=3165$ ), and thus comprise of compound colors close to grey tone. On the other hand, U.S.A. fabrics were fairly well scattered around the diagram which indicate that they comprise of various color ranges close to different pure colors.
2. Consumer Preference Survey

1) Comparison of Fabric "Dislike" Ratings

## and the Likert Score between Different Population Groups

<Table 4> displays the result of t-test on the mean Likert score and the spearman's rank order correlation of the "dislike" ranking for each population groups. The values of spearman's tho are all positive numbers for each population comparison, which indicates the groups showed similar rank order on their dislike preference. Especially when all fabrics were considered, all six population pairs- Korean vs. American ( $p=.001$ ), 20s vs. 40 s ( $p<.001$ ), Korean 20 s vs. American 20s ( $p=.003$ ), Korean 40s vs. American 40s ( $p=.044$ ), Korean 20 s vs. Korean 40 s ( $\mathrm{p}<.001$ ), American 20 s vs. American 40 s ( $\mathrm{p}=.030$ ). showed statistically significant similarities in the dislike rankings. When the Korean fabrics and the U.S.A. fabrics were considered separately, the 20 s and 40 s age groups, especially between Korean 20s and Korean 40s (Korean fabric: $\mathrm{p}=.003$, U.S.A. fabrics: $\mathrm{p}=.004$ ), showed significant similarities in the dislike rankings. The $t$-test for the differences in the mean Likert score indicated that there were significant differences only between Korean 40 s and American 40 s on all fabrics $(\mathrm{p}=, 003)$ or on Korean fabrics ( $p=.004$ ), and between American 20 s and American 40 s on Korean fabrics ( $\mathrm{p}=.002$ ).
2) Compparison of Fabric "Dislike" Ratings and the Likert Score within Each Population Groups

When the preference rankings between Kor-
<Table 4> The Result of T-Test and Spearman's Rho on the "Dislike" Preference of Different Respondent Groups

| Population Compared | Fabric Group Compared | T-Test |  |  |  | Spearman's tho |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean Difference | $t^{1}$ | df | sig. ${ }^{2}$ | rho | sig. |
| Korean/ <br> American | All | -0.148 | $-1.750$ | 49 | 0.086 | 0.452 | 0.001** |
|  | Korea | -0.215 | -1.873 | 24 | 0.073 | 0.460 | 0.021* |
|  | U.S.A. | -8.133 | -0.648 | 24 | 0.523 | 0.024 | 0.908 |
| 20s/40s | All | -0.134 | -1.686 | 49 | 0.098 | 0.627 | 0.000** |
|  | Korea | -0.242 | -1.884 | 24 | 0.072 | 0.560 | 0.004** |
|  | U.S.A. | -2.666 | -0.289 | 24 | 0.775 | 0.524 | 0.007** |
| Korean $20 \mathrm{~s} /$ <br> Amrerican 20s | All | 8.357 | 0.893 | 49 | 0.376 | 0.408 | 0.003** |
|  | Korea | 0.250 | 1.847 | 24 | 0.077 | 0.472 | 0.017* |
|  | U.S.A. | -8.322 | -0.677 | 24 | 0.505 | 0.152 | 0.467 |
| Korean 40s/ <br> American 40s | All | -0.490 | -3.179 | 49 | 0.003** | 0.287 | 0.044* |
|  | Korea | -0.718 | -3.164 | 24 | 0.004** | 0.083 | 0.692 |
|  | U.S.A. | -0.262 | -1.290 | 24 | 0.209 | 0.164 | 0.433 |
| Korean 20s/ <br> Korean 40s | All | -0.156 | -1.291 | 49 | 0.203 | 0.551 | 0.000** |
|  | Korea | 0.350 | 1.677 | 24 | 0.108 | 0.562 | 0.003** |
|  | U.S.A. | 0.148 | 0.777 | 24 | 0.445 | 0.560 | 0.004** |
| American 20s/ American 40s | All | -0.286 | -2.081 | 49 | 0.043 | 0.306 | 0.030* |
|  | Korea | -0.618 | -3.550 | 24 | 0.002** | 0.171 | 0.413 |
|  | U.S.A. | -3.011 | -0.247 | 24 | 0.807 | 0.155 | 0.458 |
| Korean | Korea/U.S.A. | -0.435 | -2.518 | 48 | 0.015* | 0.427 | 0.033* |
| American | Korea/U.S.A. | -0.301 | -2.271 | 48 | 0.028* | 0.063 | 0.765 |
| 20 s | Korea/U.S.A. | -0.470 | -3.584 | 48 | 0.001** | 0.523 | 0.007** |
| 40s | Korea/U.S.A. | -0.255 | 1.483 | 48 | 0.145 | 0.333 | 0.104 |
| Korean 20s | Korea/U.S.A. | -0.304 | -1.955 | 48 | 0.056 | 0.627 | 0.001** |
| Korean 40s | Korea/U.S.A. | -0.505 | -1.632 | 48 | 0.109 | -0.099 | 0.638 |
| American 20s | Korea/U.S.A. | -0.637 | -3.894 | 48 | 0.000** | 0.389 | 0.054 |
| American 40s | Korea/U.S.A. | -4.911 | -0.269 | 48 | 0.789 | -0.016 | 0.939 |

${ }^{i} t$ values for either equal or unequal variances have been selected based on the $F$ test.
${ }^{2 *}$ : significant at $\alpha=0.05, * *$ : significant at $\alpha=0.01$
ean fabrics and U.S.A. fabrics were compared within each population group, < Table $4>$ indicates that except for Korean 40 s and American 40 s age groups, all the other groups showed similar dislike rankings (rho being positive numbers) despite their insignificance on the probability level. The groups which showed statistical significance on the similarities of rankings were Koreans ( $\mathrm{p}=.033$ ), 20s ( $\mathrm{p}=.007$ ), and Korean 20s $(p=.001)$. The $t$-test indicated that Korean ( $p=.015$ ), American ( $p=.028$ ), 20 s ( $p=.001$ ), American 20s ( $p<.001$ ) groups showed significant differences on the Likert score between Korean and U.S.A. fabrics. In all cases, the U.S.A. fabrics received higher score on the dislike scale, which means that the population overall disliked U.S.A. fabrics more than the Korean fabrics.
3) The Most Disliked Fabric for Each Popul-

## ation Groups

<Table 5> displays the ranks of fabrics which received the highest and the lowest scores on the "dislike" scale. Most population groups tended to dislike American fabrics more than the Korean fabrics. This fact was apparent in that the fabrics which received lowest score in the dislike scale were mostly Korean fabrics regardless of population groups.

## 3. Consumer's Dislike Preference in Relation

## to Fabric Characteristics

There was a significant difference in the mean thickness of the 10 most disliked fabrics between Korean vs. American ( $p=.021$ ), and Korean 20s vs. American 20s ( $p=.032$ ) comparison groups (Table 6). In both cases the 10 most disliked fabrics of the Korean population groups were lighter in weight than those of the American groups. In other fabric characteristics
<Table 5> Result of "Dislike" Score on Total Fabrics for Different Respondent Groups

|  |  | Korean | American | 20 's | 40's | Rorean 20's | American 2\%s | Korean 40's | American 40's |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | K U Fabt | K U Fabit | K U Fabt | K U Fabt | K U Fabi | K U Fab ${ }^{\text {\% }}$ | K U Fabat | K U Fabit |
| Lowest to | 41 |  |  |  |  |  |  21 <br> $:$ 45 <br> $:$ 11 <br> $:$ 12 <br> $:$ 1 <br> $:$ 35 <br> $:$ 26 <br> $:$ 49 <br> $:$ 4 <br> $:$ 22 |  | $\begin{array}{lrr}  & 0 & 14 \\ \bullet & & 38 \\ & \square & 31 \\ : & & 26 \\ & 0 & 5 \\ : & & 25 \\ : & & 21 \\ : & & 20 \\ : & 6 \\ : & & 49 \end{array}$ |
| Highest 10 | 10 9 8 7 6 5 5 4 3 2 1 |  | $\begin{array}{ccc} 0 & 19 \\ 0 & 0 \\ 0 & & 34 \\ 0 & 24 \\ 0 & 27 \\ 0 & 27 \\ 0 & 42 \\ 0 & 46 \\ 0 & 15 \\ 0 & 28 \\ - & & 37 \end{array}$ | $\begin{array}{lll} 0 & & 20 \\ & 0 & 39 \\ & 0 & 14 \\ : & & 34 \\ : & & 13 \\ 0 & 45 \\ 0 & 15 \\ 0 & 31 \\ 0 & 0 & 47 \\ 0 & 27 \end{array}$ |  |  | 0 29 <br> 0 40 <br> 0 19 <br> 0 24 <br> 0 42 <br> 0 27 <br> 0 9 <br> 0 14 <br> 0 15 <br>  28 |  | $\begin{array}{lll} 0 & 39 \\ & 0 & 42 \\ : & & 34 \\ & 0 & 18 \\ & 0 & 15 \\ : & & 13 \\ & 0 & 10 \\ \bullet & & 28 \\ & 0 & 46 \\ \bullet & & 37 \end{array}$ |

K ( $\mathbf{1}$ ): Korean Fabic
U (a): U.S.A Fabric
Fabt: Fabric Number
<Table 6> Group Differences for Different Fabric Characteristics for the "Dislike" Preference

| Population Compared | Physical Characteristics | Mean Difference | t | df | sig. ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Korean/American | Weight <br> Thickness Density | $\begin{array}{r} -0.3706 \\ -0.1340 \\ 23.8000 \end{array}$ | $\begin{array}{r} -1.572 \\ -2.789 \\ 0.487 \end{array}$ | $\begin{aligned} & 9 \\ & 9 \\ & 9 \end{aligned}$ | $\begin{aligned} & 0.150 \\ & 0.021^{*} \\ & 0.638 \end{aligned}$ |
| 20s/40s | Weight <br> Thickness Density | $\begin{array}{r} 2.1766 \\ -2.6444 \\ -16.2000 \end{array}$ | $\begin{array}{r} 0.070 \\ -0.542 \\ -0.402 \end{array}$ | $\begin{aligned} & 9 \\ & 9 \\ & 9 \end{aligned}$ | $\begin{aligned} & 0.945 \\ & 0.601 \\ & 0.697 \end{aligned}$ |
| Korean 20s <br> /American 20s | Weight <br> Thickness <br> Density | $\begin{array}{r} -0.3931 \\ -0.1096 \\ 57.5000 \end{array}$ | $\begin{array}{r} -1.805 \\ -2.536 \\ 1.923 \end{array}$ | $\begin{aligned} & 9 \\ & 9 \\ & 9 \end{aligned}$ | $\begin{aligned} & 0.105 \\ & 0.032^{*} \\ & 0.087 \end{aligned}$ |
| Korean 40s /American 40s | Weight <br> Thickness Density | $\begin{array}{r} 0.1820 \\ -1.8000 \\ 22.1000 \end{array}$ | $\begin{array}{r} 0.680 \\ -0.046 \\ 0.456 \end{array}$ | $\begin{aligned} & 9 \\ & 9 \\ & 9 \end{aligned}$ | $\begin{aligned} & 0.514 \\ & 0.964 \\ & 0.659 \end{aligned}$ |
| Korean 20s <br> /Korean 40s | Weight <br> Thickness <br> Density | $\begin{array}{r} -0.2439 \\ -4.2666 \\ -13.5000 \end{array}$ | $\begin{aligned} & -1.081 \\ & -0.795 \\ & -0.349 \end{aligned}$ | $\begin{aligned} & 9 \\ & 9 \end{aligned}$ | $\begin{aligned} & 0.308 \\ & 0.447 \\ & 0.735 \end{aligned}$ |
| American 20s <br> /American 40s | Weight <br> Thickness <br> Density | $\begin{array}{r} 0.3312 \\ 6.5200 \\ -48.9000 \end{array}$ | $\begin{array}{r} 1.283 \\ 1.178 \\ -1.498 \end{array}$ | 9 9 9 | $\begin{aligned} & 0.232 \\ & 0.269 \\ & 0.168 \end{aligned}$ |

such as weight and density there were no sig. nificant differences.

The most frequent fabric structure of the 10 most disliked fabrics was plain weave and such result reflects the most frequent structure of the total fabric samples. There were no twill weave fabrics in the 10 most disliked fabrics. There were 3 knit fabrics among the 10 most disliked fabrics of the Korean 40 s age group, which was a fairly high proportion considering the total number of knit samples ( $\mathrm{n}=8$ ). In terms of visual color, the most frequent ones in the 10 most liked category were solid. American 20s and 40 s groups tended to dislike check pattem more than the Koreans. Considering the number of melange fabrics among the total fabric samples, there were only few number of melange fabrics included in the 10 most disliked fabrics. Chromaticity Diagrams (not included due to space) of the 10 most disliked fabrics for each population groups illustrated that the tristimulus coordinates of the 10 most disliked
fabrics of the Koreans tend to be scattered whereas those of the Americans tend to be centered toward the coordinates of the standard light source. Especially, the Diagram of the American 40s age group show a strong tendency of centering of the tristimulus coordinates. This indicates that the American 40 s group tend to have a strong dislike preference towards the compound colors in different grey tone. According to the subjective reponses, the Koreans listed function/physical characteristics as the first reason and color for the second reason for the dislike preference (Table 7). Similar result was observed with the Americans.

## IV. Conclusion

The above results can be summarize as follows. When the total fabrics were considered, all six population groups showed similar dislike rankings. When the Korean fabrics and the U.S.A. fabrics were considered separately, the
<Table 7> Results of Subjective Response for "Dislike" Preference

| Subjects | Response type | N | Subjects | Response type | N |
| :--- | :--- | ---: | :--- | :--- | ---: |
|  | Color | 25 |  | Color | 18 |
|  | Texture | 10 |  | Texture | 15 |
| Korean | Function/Physics | 45 |  | American | Function/Physics |
| 20s | Luster | 2 | 20 s | Structure | 18 |
|  | Structure | 2 |  | 2 |  |
|  | Pattern | 12 |  | Pattern | 3 |
|  | Mood | 6 |  | Mood | 17 |
|  | Color | 17 |  |  | Color |
| Korean | Texture | 9 |  | Texture | 14 |
| 40s | Function/Physics | 25 | American | Function/Physics | 10 |
|  | Pattern | 3 | 40 s | Structure | 3 |
|  | Mood | 1 |  | Pattern | 3 |
|  |  |  | Mood | 17 |  |

20 s and 40 s age groups, especially between Korean 20s and Korean 40s, showed significant similarities the dislike rankings. When the dislike preferences between Korean fabrics and U.S.A. fabrics were examined for different population groups, all the groups showed a somewhat similar dislike rankings and in all cases U.S.A. fabrics were disliked more than the Korean fabrics. In terms of the physical characteristics of fabrics, the 10 most disliked fabrics of the Korean population tend to be lighter in weight than those of the American groups. The most apparent difference in the physical characteristics of disliked fabrics was observed in fabric color. The Americans, especially the 40s age group, disliked the fabrics with dark compound colors, whereas the Koreans in all age groups dislike fabrics close to bright pure colors.

As part of an international cooperative research project, this research focused on only the difference of the dislike preference over formal wear fabrics between the Koreans and the Americans. Due to limited space the "like" preference is presented separately. Therefore, as a follow up, the result of this study should be examined in accordance with that of the "like" preference study. One of the limitations of this research was that there were no control factors
to the fabrics used since they were the actual fabrics in the real life rather than those made specially for the experiment. For this reason more caution is needed for the generalization of the results to the marketing or production plan. However, considering that the apparels we purchase and wear are indeed made of such "real life" fabrics, the result of this research can be used as a first step to understanding the consumer preference of the two nations. Future research should be directed towards more diverse fabrics and apparel items, and it is hoped that such effort can serve as a part in bettering the marketing and manufacturing strategies. And lastly, the authors pay deepest gratitude to the fabric converters in both Korea and U.S.A. for donating fabric samples for this study.

## References

Ahn, C. S. 1996. A quantitative approach to the studies in historic costume using the documentary evidence. Journal of Korean Society of Clothing \& Textiles, 20(1): 76-86.
Ahn, C., Lee, S. H., Yang, Y., Lim, S. J. \& Lennon, S. J. in print. A comparative research on Korean and American consumer's preference on selected Korean and American
textiles for women's formal wear. Korean Society of Clothing \& Textiles.
Chung, W. K., Chang, D. S., Suh, B. Y., Park, S, J., Cho, I. S., \& Cho, K. M. 1997. Textile dyeing. Seoul: Hyungsul Publishing Co.
FITI Testing Inspection Center. Fiber testing method. Seoul: FITI Testing Inspection Center.
Hong, D. S. 1987. Analysis of social science survey. Seoul: Dasan Publishing Co.
Kassarjian, H. H. 1977. Content analysis in consumer research. Journal of Consumer Research 4: 8-18.

Korean Society of Fiber Engineering. 1992. Testing and analysis of textile goods. Korean Association of Textile Research \& Inspection, Industry-Academy Cooperative Seminar 10.
Lee, S. H. \& Son, H, J. 1994. Investigation of the effect of textile material on apparel design. Sungshin Women's University, Journal of Living Culture, 8: 185-216.
Paoletti, J. B. 1980. The role of choice in the democratization of fashion: A case study, 1875-1885. Dress, 6: 47-56.
Park, E. J. 1998. Fundamentals of color art. Seoul: Mijinsa.


[^0]:    E-mail : cssong@lion.inchon.ac.kr

[^1]:    ${ }^{2}$ C. Ahn, S. H. Lee, Y. Yang, S. J. Lim, S. J. Lennon, \& S. M. Parker, "A comparative research on Korean and American consumer's preference on selected Korean and American textiles for women's formal wear," Korean Society of Clothing \& Textiles, in print.
    ${ }^{3}$ FITI Testing Inspection Center, Fiber Testing Method (Seoul: FITl Testing Inspection Center).
    ${ }^{4}$ Korean Society of Fiber Engineering. Testing and analysis of textile goods, Korean Association of Textile Research \& Inspection, Industry-Academy Cooperative Seminar 10, 1992.
    ${ }^{5}$ E. J. Park, Fundamentals of color art (Seoul: Mijinsa, 1998).
    ${ }^{6}$ W. K. Chung. D. S. Chang, B. Y. Suh, S. J. Park, I. S. Cho \& K. M. Cho, Textile dyeing (Seoul: Hyungsul Publishing Co, 1997).

[^2]:    ${ }^{7}$ D. S. Hong, Analysis of social science survey (Seoul: Dasan Publishing Co., 1987).
    ${ }^{2}$ H. H. Kassarjian, Content analysis in consumer research, Journal of Consumer Research, 4 (1977): 8-18.
    ${ }^{9}$ J. B. Paoletti, The role fo choice in the democratization of fashion: A case study, 1875-1885, Dress, 6 (1980): 47-56.
    ${ }^{10}$ C. S. Ahn, A quantitative approach to the studies in historic costume using the documentary evidence, Journal of Korean Sociery of Clothing \& Textiles, 20(1) (1996): 76-86.

