The Effects of Clothing Styles and Colors on the Image Perception and the Evaluation of Age for Men

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Abstract

The purpose of this research was to investigate the effects of clothing style and color of male casual wear on image perceptions and age evaluations. 4×2 (top color×trouser color) and 2×3×2 (clothing style×clothing hue×clothing chroma) factorial designs were used as the experiment designs. Photoshop program was used to manipulate the clothing colors after creating photos of models wearing experiment clothing for stimulus. Subjects were 280 female college students from Seoul region and each subject responded to two stimuli. Factor analysis showed four factors of images of male casual wear; sociability, conspicuousness, softness and masculinity. Polo shirts were evaluated higher in sociability and softness than jumpers and navy blue trousers were evaluated higher in masculinity than beige trousers. High chroma clothing was assessed higher in sociability and conspicuousness than low chroma clothing. High chroma red jumpers displayed very sociable feel and low chroma blue jumpers displayed the lowest sociability. High chroma male clothing resulted in younger age perception but age was evaluated young when a black shirt was worn under the jacket when wearing a low chroma jacket.

Key words : clothing style, clothing color, image perception, evaluation of age, casual wear, black shirt.

I . Preface

Clothing is means of self expression and others are evaluated in social reciprocal relationships through clothing. Perception is a process of accepting, organizing and interpreting stimuli given to a person in environments (Atkinton et al., 1984) and age, occupation, class, personality, neatness and integrity of a person seen for the first time can be evaluated to a certain degree when a perception occurs for a short period of time (Horn & Gurel, 1981).

Clothing image is an overall feel conveyed by the clothing. Its expression varies by line, shape, material, color and other aspects of design and clothing recognition and preferred clothing characteristics can vary by cultural norms of society or individual characteristics. Clothing color is the first noticed design factor and an important clue to yielding visual evaluation of others by acting as a very important decision factor in consumers' choosing clothing. Therefore, academical researches on the visual evaluations of clothing colors are active through various clothing types. However, researches on visual evaluations of clothing are mostly focused on female clothing and researches on male clothing are relatively deficient. In addition, researches on male clothing are focused on male formal wear and lack variety. Recently, clo-

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thing styles and colors worn by men are changing broadly as male clothing shifts towards casual. Therefore, systemic researches on styles and colors of male clothing are believed to be necessary.

In this study, the goal is to research differences in image evaluations by clothing styles and colors of male casual wear and differences in age evaluations by clothing styles and colors through observers' points of views. The significance is to understand clothing images of men through observers' viewpoints and to provide data to assist management and presentation of images of male clothing consumers by providing systemic academic data on male clothing in apparel field and basic data to male clothing industry.

II. Theoretical Background

1. Image Evaluations of Male Clothing Styles

Impression of people can change by clothing styles. Results of research on perceptions of male clothing styles by Bell (1991) show that bold styles and casual styles are perceived as low attractiveness and intellectual aspect. Conservative styles were perceived as attractive and intellectual but not regular attire and were evaluated to be at a higher social hierarchy than casual styles. Research by Damhorst (1985) shows that people wearing formal styles are evaluated to be management personnel or higher level personnel with more responsibilities than people wearing casual styles and more active and authoritative.

Nam (1992) displayed in his research by varying clothing styles (formal, casual), clothing type (trendy, basic) and color (trendy, basic) that clothing type had the largest effect on activeness factor with formal attire receiving positive evaluations regardless of occasions but gave unique and inactive impressions. Casual attire was active regardless of occasions but was shown to give negative impressions in occasions like interviews. A study by Lee and Kahng (1994) showed that single button suits were evaluated as more attractive, characteristic and active than double button suits. In a study by Lee (1993), male college students

in jackets and button-down collar shirts were perceived to be more intellectual than those in jumpers and button-down collar shirts. A study by Lee and Koh (1995) showed significant differences among clothing types in evaluations in appearance and competency except dominant impression, individuality and simplicity. Clothing types of office workers, upper management and sales person were shown to be attractive and possess class and competency. Clothing types of celebrities were shown to be characteristic and clothing types of laborers to give impressions of simplicity. In a research by Im and Kang (2003), jacket and khaki type was evaluated as the classiest and dress shirt and jeans was evaluated as low class. Dress shirt and khaki clothing type was evaluated as characteristic and jacket and jeans as uncharacteristic. Dress shirt and khaki and dress shirt and jean were evaluated as more active and sociable than jacket and khaki and jacket and jeans.

It can be seen from the above research results that men's clothing styles were studied with distinction between formal wear and casual wear and a person's impression changes by expressing clothing style differently.

2. Image Evaluations of Male Clothing Colors

Color is the most expressive factor in clothing and it can be used effectively for an individual to express oneself and assists in creating an impression one wants. Symbolisms of colors and characteristics of colors displayed by associations to them vary by cultures and individuals but show a certain consistency (Kahng, 1995).

Molloy (1988) stated that darker color suits give more authoritative feel in men's clothing and black was more authoritative than other dark colors. Additionally, dark blue and grey suits were stated to give the most credibility. In a research by Lee and Kim (1998), influences on men's impression level were shown in the sequence of clothing color, perceivers' gender, context (classroom, outdoors) and formality of clothing (formal, casual jacket, jumper), stating that clothing color had the largest influence. Navy blue clothing received

more positive evaluations. being evaluated to be more intellectual and polite than red brown clothing and red brown clothing was shown to be perceived as more comfortable and friendly than navy blue clothing.

In a study by Lee and Kahng (1994), similar color neckties were perceived to be more characteristic and active for young people wearing navy blue suits while contrasting color neckties were evaluated to be more characteristic and active in beige suits. For middle aged dressers, ones wearing contrasting color neckties were evaluated to be softer, warmer and unauthoritative. In a study by Lim (1996), navy blue suits and similar color neckties were effective regardless of the patterns when presenting competent images and stripe patterns and paisley patterns were shown to be most effective for competent images. Similar color neckties were stated to be able to present the warmest and the softest image with beige suits. Kim (2003) studied male election candidates and the result shows that navy blue jacket - blue shirt - yellow necktie created the most dynamic impression and grey or black jacket - blue shirt - multicolor necktie was evaluated to be the least dynamic impression. In a study by Choi and Lee (2004), dark blue formal jackets were more positively perceived than grey jackets in the areas of competency, class, preferrence evaluation and masculinity and white shirts were evaluated higher in masculinity than blue shirts. Significant interaction effect was displayed in jacket colors, dress shirt colors and necktie colors in conspicuousness level. It was evaluated as most competent and attractive when white shirts were arranged with navy blue jackets and red neckties and blue shirts with navy blue jackets and blue neckties.

It can be seen from the above that many studies on male clothing color images were focused on male formal wear. Clothing colors such as dark blue, blue, grey, white and black were significant clues in image evaluations.

Ⅲ. Research Method

1. Evaluation Tools

Two factorial designs were used in the study. 4×2 (top color×trouser color) factorial design was used for the first (A type) and 2×3×2 (clothing style×clothing hue×clothing chroma) factorial design was used for the second (B type).

Clothing styles of the tops in the experiment design A type were tailored collar casual jackets and dress shirts and the jackets were manipulated using low chroma colors. Stimuli 1, 2 and 3 wore dark grey (N 3.5), grey (N 6.0) and light grey (N 8.5) jackets with white dress shirts and stimulus 4 wore a light grey jacket with a black dress shirt. Beige (5Y 8.0/2) and navy blue (3.0PB 3.5/3) khakis were worn as trousers.

Clothing styles of the tops in the experiment design B type were soutien collar jumpers and polo shirts and both the jumpers and the shirts were manipulated using high chroma colors. Three colors, red, blue and yellow were used for the jumpers and the polo shirts. Chroma was categorized into high chroma and low chroma using the Munsell color system as the standard. 5R 5.0/10, 3.0PB 3.5/9 and 5.0Y 8.0/14 colors were used for the high chroma red, blue and yellow. 5R 5.0/6, 3.0PB 3.5/7 and 5.0Y 8.0/7 colors were used for the low chroma red, blue and yellow. All wore Beige (5Y 8.0/2) khakis as the trousers.

After creating photos of the models wearing the experiment clothing, Adobe Photoshop Program was used to manipulate the clothing colors in the stimuli. Faces and shoes were excluded to control the effects of the faces and the shoes. Background color was light sky blue (5BG 9.0/2) and the size of the stimuli photos was 7.5×17.5 cm. Total twenty stimuli were used and numbers from S1 to S20 were assigned to the stimuli.

Evaluation tools used in the image perception were collected by referring to adjectives used in a prior research (Lee & Kahng, 1994; Kim, 2003; Choi & Lee, 2004; Kang, 2005; Yoo, 2005) and consist of 16 questions in 7 point semantic differential scale. A question about the ages of the stimuli and a question about the subjects' ages were included.

2. Data Collection and Data Analysis

Subjects of this study as the perceivers were female college students in Seoul region and each subject responded to two stimuli. Therefore, 28 subjects executed evaluations on each stimulus. Subjects were 280 female college students from Seoul region and 82.9% of the subjects were in their 20's.

SPSS program was used for data analysis. Factor analysis, Cronbach's α-reliability coefficient, one-way ANOVA, tow-way ANOVA, three-way ANOVA and Duncan's multiple range test were conducted for statistical analysis methods.

IV. Results and Discussions

1. Factor Analysis of Evaluations on Clothing Images

Principal component analysis and factor analysis by varimax rotation were conducted on the 16 adjective questions in the semantic differential scale to categorize clothing image evaluation categories. As the result, four factors were extracted and the questions about the each category is shown in the 〈Table 1〉.

Factor 1 was titled sociability as it included social-antisocial and active-passive. Factor 2 was titled conspicuousness as it included unique-ordinary and conspicuous-inconspicuous. Factor 3 was titled softness as it included soft-hard and natural-unnatural. Factor 4 was titled masculinity as it included cold-warm and masculine-feminine.

Factor loadings for all questions were above 0.60 and cumulative variance to factor 4 was 65.49%. Cronbach's α-reliability coefficients of the factors were 0.89, 0.81, 0.54 and 0.57.

In the study, the extraction of the sociability factor was consistent with the research by Im and Kang (2003). The extractions of the conspicuousness and softness factors were consistent with the researches by Cha (1992) and Kim et al. (1998). The extraction of the masculinity factor was similar to the research by Choi and Lee (2004).

Higher points in questions in each factor are interpreted as having higher characteristics of the first adjective and tendencies of the corresponding factor. Higher points in the softness factor

〈Table 1〉 Factor Analysis of Clothing Image Perception

Factor 1. Sociability	Factor Loading
Confident - Not Confident	0.83
Intellectual - Not Intellectual	0.75
Refined - Boorish	0.74
Social - Antisocial	0.73
Active - Passive	0.68
Attractive - Unattractive	0.66
Competent - Incompetent	0.65

Eigenvalue=4.24, % of Variance=26.53, Cumulative %=26.53, α=0.89

Factor 2. Conspicuousness	Factor Loading
Unique - Ordinary	0.82
Conspicuous - Inconspicuous	0.81
Characteristic - Ordinary	0.70
Active - Inactive	0.60

Eigenvalue= 2.90, % of Variance=18.10, Cumulative %=44.63, α=0.81

Factor 3. Softness	Factor Loading
Casual - Formal	0.68
Soft - Hard	0.67
Natural - Unnatural	0.66

Eigenvalue=1.82, % of Variance=11.36, Cumulative %=55.99, α=0.54

Factor 4. Masculinity	Factor Loading
Cold - Warm	0.82
Masculine - Feminine	0.77

Eigenvalue=1.52, % of Variance=9.50, Cumulative %=65.49, α=0.57

are interpreted as being softer.

2. Image Evaluations by Colors of Upper Clothes and Trouser

Two-way ANOVA was executed to study the differences in the image evaluations by colors of upper clothes and trouser. The result is shown in the 〈Table 2〉.

Main effects in the 〈Table 2〉 show significant differences in conspicuousness evaluations by upper clothes colors while no significant differences were shown in the evaluations in the levels

⟨Table 2⟩ Differences in Image Evaluations by Colors of Upper Clothes and Trouser

Source of Variation		df	Sociability F	Conspicuousness F	Softness F	Masculinity F
Top Color (A)		3	1.85	2.99*	1.36	0.62
Trouser Color (C)		1	0.05	0.40	3.67	6.69*
A×B		3	0.74	1.32	0.04	2.38
Residual		216				
Variable	Category	N	M	M	M	M
Top Color	Dark G · White SH	56	3.37	2.43ab	3.50	4.40
	G · White SH	56	3.07	2.13b	3.13	4.27
	Light G · White SH	56	3.49	2.49ab	3.74	4.51
	Light G · Black SH	56	3.49	2.72a	3.69	4.27
Trouser Color	Beige	112	3.37	2.40	3.71	4.17
	Navy Blue	112	3.34	2.49	3.47	4.55

*$p<0.05$, G: gray, SH: shirt.

of sociability, softness and masculinity. Comparing the averages, light grey and black shirts were evaluated as having the highest conspicuousness and grey and white shirts were evaluated as having the lowest conspicuousness.

This is considered due to dark grey, grey and light grey jackets coordinated with commonly worn white shirts being ordinary and familiar but the coordination of light grey jackets and black shirts not being commonly worn or familiar and thus evaluated as unique and characteristic. It is similar content with the research result by Lee and Kim (1998) in which black color is evaluated high in aesthetical image. It is also in the same context as the research result by Choi and Lee (2004) which states that grey jackets with white shirts have low conspicuousness.

Significant differences were displayed in masculinity evaluations by trouser colors and navy blue were shown to have higher masculinity than beige. This supported the previous research result (Lee & Kim, 1998) in which navy blue was evaluated to be the most competent and masculine.

3. Image Evaluations by Clothing Styles, Clothing Hue and Chroma

Three-way ANOVA was executed to study the differences in the image evaluations by clothing styles, clothing hue and chroma. The result is shown in the ⟨Table 3⟩.

Main effects in the ⟨Table 3⟩ show significant differences in sociability and softness evaluations by clothing styles with polo shirts being evaluated higher in both sociability and softness than jumpers. That is, polo shirts were shown to have sociable, active, soft and natural image. It is thought that polo shirts appear more comfortable for activities both indoors and outdoors and less formal than jumpers which are usually worn outdoors and thus were evaluated more sociable and soft. This result supports the research results by Conner et al. (1975) where clothing had effects on sociable images and is consistent with the research result by Kang (2005) where sweaters were shown to have more sociable image than jumpers.

Significant differences were shown in masculinity evaluations by clothing hues. Blue was evaluated as the most masculine color followed by red and yellow was evaluated to have the lowest masculinity. This is similar to the research results by Lee and Hong (2004) in which yellow was evaluated high in feminity and blue was evaluated high in masculinity on the clothing hue

<Table 3> Differences in Image Evaluations by Clothing Styles, Clothing Hue and Chroma
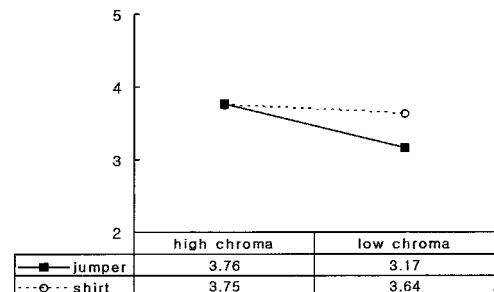
Cource of Variation		df	Sociability F	Conspicuousness F	Softness F	Masculinity F
Clothing Style (A)		1	4.91*	0.05	16.34**	0.65
Hue (B)		2	0.76	1.70	2.19	13.23**
Chroma (C)		1	11.73**	37.00**	0.85	0.11
A×B		2	2.70	1.74	1.81	2.60
A×C		1	5.44*	6.10*	2.14	2.34
B×C		2	0.58	3.54*	0.16	3.16*
A×B×C		2	3.51*	1.57	0.91	2.28
Residual		324				
Variable	Category	N	M	M	M	M
Clothing Style	Jumper	168	3.47	3.21	4.52	3.91
	Polo Shirt	168	3.69	3.18	4.94	3.83
Hue	Red	112	3.56	3.04	4.82	3.82b
	Blue	112	3.51	3.22	4.58	4.20a
	Yellow	112	3.67	3.33	4.79	3.58c
Chroma	High Chroma	168	3.76	3.58	4.78	3.88
	Low Chroma	168	3.40	2.81	4.68	3.85

*p<0.05, **p<0.01.

image evaluation by Korean and American college students.

Chroma had significant effects only on sociability and conspicuousness evaluations. High chroma was perceived to be higher in both sociability and conspicuousness than low chroma. This signifies that men wearing high chroma clothing are visually noticeable and are considered by others to be confident and active.
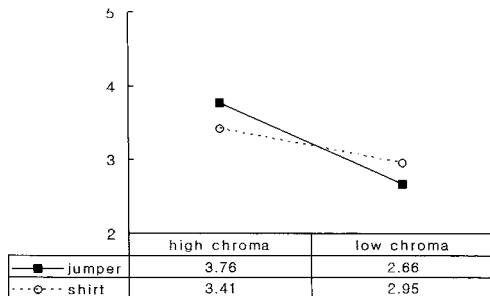
Interaction effect was seen in sociability between clothing styles and chroma and its form is shown in <Fig. 1>. Sociability scores of polo shirts were perceived similarly in both high chroma and low chroma but sociability was displayed higher in high chroma than low chroma for jumpers. It is interpreted that wearing high chroma or low chroma polo shirts are natural and the differences are not felt but while low chroma jumpers give dark images, high chroma jumpers give more active and bright feel and thus perceived as more sociable. This supports a research results by Lee
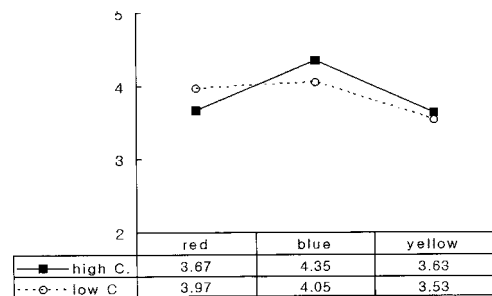

	high chroma	low chroma
—■— jumper	3.76	3.17
⋯○⋯ shirt	3.75	3.64

<Fig. 1> Interaction Form on Sociability Evaluation by Clothing Styles and Chroma.

et al. (1995) where dark clothing colors were evaluated to appear heavy and inactive.
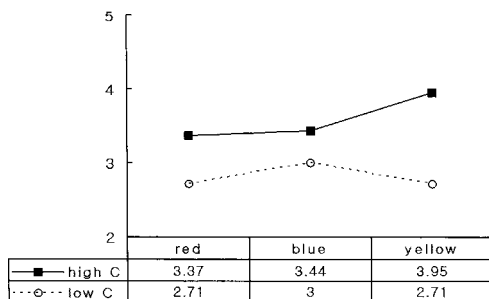
Conspicuousness had interaction effect by clothing styles and chroma and its form is shown in <Fig. 2>. Relatively small difference was shown in polo shirts by chroma but large difference was shown in jumpers with high chroma jumpers showing much higher conspicuousness than low
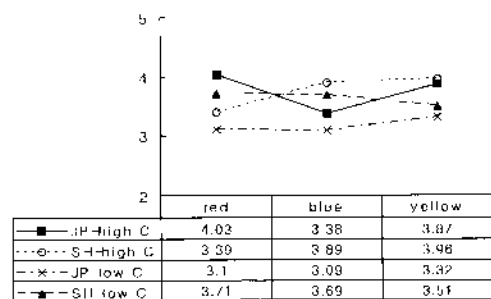
	high chroma	low chroma
■ jumper	3.76	2.66
⊙ shirt	3.41	2.95

⟨Fig. 2⟩ Interaction Form on Conspicuousness Evaluation by Clothing Styles and Chroma.

	red	blue	yellow
■ high C.	3.67	4.35	3.63
⊙ low C	3.97	4.05	3.53

⟨Fig. 4⟩ Interaction Form on Masculinity Evaluation by Clothing Hues and Chroma.

	red	blue	yellow
■ high C	3.37	3.44	3.95
⊙ low C	2.71	3	2.71

⟨Fig. 3⟩ Interaction Form on Conspicuousness Evaluation by Clothing Hues and Chroma.

	red	blue	yellow
■ JP-high C	4.03	3.38	3.87
⊙ SH-high C	3.39	3.89	3.96
× JP low C	3.1	3.09	3.32
▲ SH low C	3.71	3.69	3.51

⟨Fig. 5⟩ Interaction Form on Sociability Evaluation by Clothing Styles, Clothing Hues and Chroma.

chroma jumpers.

Conspicuousness had interaction effect by clothing hues and chroma and its form is shown in ⟨Fig. 3⟩. High chroma displayed higher conspicuousness than low chroma regardless of clothing hues. Especially, yellow in high chroma displayed the highest conspicuousness and very large differences were shown by chroma in yellow. It is considered that yellow is evaluated as a conspicuous color as high chroma yellow is unusual for men's clothing color. This supports the result by Lee and Hong (2004) in which yellow was evaluated as characteristic image.

Masculinity had interaction effect by clothing hues and chroma and its form is shown in ⟨Fig. 4⟩. Masculinity was perceived higher in high chroma than low chroma for blue but masculinity was perceived higher in low chroma than high chroma in red.

In ⟨Table 3⟩, interaction effects were shown

in the level of sociability evaluation in three independent variables and their form is shown in ⟨Fig. 5⟩. High chroma red jumpers were evaluated the highest in sociability and red jumpers were verified to display social and active image. High chroma red jumpers had higher sociability than high chroma red shirts. Low chroma jumpers were evaluated low in sociability in all hues.

4. Age Evaluation of Stimuli

Two-way ANOVA was run on age evaluations of stimuli by top colors and trouser colors in the experiment design A type but no interaction effect was found.

Three-way ANOVA was run on age evaluations of stimuli by clothing styles, clothing hues and chroma in the experiment design B type and its result is shown in ⟨Table 4⟩.

Main effects in ⟨Table 4⟩ show significant differences in age evaluations by clothing styles and

<Table 4> Differences on Age Evaluations of Stimuli by Clothing Styles, Clothing Hues and Chroma

Source of Variation		df	Age F
Clothing Style (A)		1	240.32**
Hue (B)		2	0.49
Chroma (C)		1	22.64**
A×B		2	0.32
A×C		1	3.02
B×C		2	7.29**
A×B×C		2	0.08
Residual		324	
Variable	Category	N	M
Clothing Style	Jumper	168	42.64
	Polo Shirt	168	31.76
Hue	Red	112	37.36
	Blue	112	37.51
	Yellow	112	36.71
Chroma	High Chroma	168	35.53
	Low Chroma	168	38.87

**$p<0.01$.

chroma but no significant difference by clothing hues. Comparing the averages, shirts were evaluated younger in age than jumpers and high chroma was evaluated younger in age than low chroma.
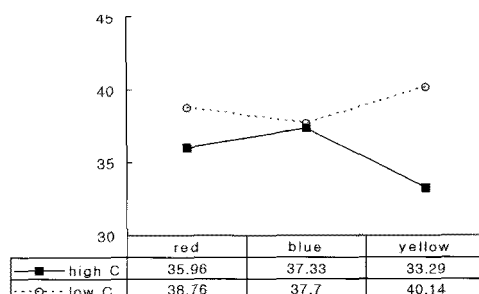
Ages of stimuli had interaction effect by clothing hues and chroma and its form is shown in <Fig. 6>.

	red	blue	yellow
high C	35.96	37.33	33.29
low C	38.76	37.7	40.14

<Fig. 6> Interaction Form on Age Evaluation of Stimuli by Clothing Hues and Chroma

High chroma was evaluated younger in age than low chroma in red clothing. In yellow clothing, high chroma appeared much younger than low chroma and large differences in age perception was shown by chroma. In addition, blue clothing showed little difference in age perception by chroma. This is considered due to that large differences in age evaluations are shown as chroma has larger effect on yellow clothing.

Differences in age evaluations of each stimulus in the experiment design A type were studied with one-way ANOVA and Duncan's multiple range test and its result is shown in <Table 5>. Ages by stimuli were categorized into three groups in <Table 5>. Grey jackets, white shirts and beige trousers (S3) in group a with 46.88 years were evaluated oldest in age. Light grey jackets, black shirts and navy blue trousers (S8) and light grey jackets, black shirts and beige trousers (S7) were evaluated very young with 36.79 years and 37.46

<Table 5> Differences in Age Evaluations by Type A Stimuli

Stimulus Age	S8	S7	S5	S2	S1	S6	S4	S3
	36.79	37.46	39.63	39.68	40.75	43.39	43.45	46.88
F 3.90**					──────► c			
			────────	────────	──────────► b			
							──────────► a	

**$p<0.01$, a-c: Duncan's multiple range test.
S1: Dark grey jacket, white shirt and beige trousers, S2: Dark grey jacket, white shirt and navy blue trousers, S3: Grey jacket, white shirt and beige trousers, S4: Grey jacket, white shirt and navy blue trousers. S5: Light grey jacket, white shirt and beige trousers, S6: Light grey jacket, white shirt and navy blue trousers, S7: Light grey jacket, black shirt and beige trousers, S8: Light grey jacket, black shirt and navy blue trousers.

⟨Table 6⟩ Differences in Age Evaluations by Type B Stimuli

Stimulus Age	S19	S15	S18	S16	S17	S20	S13	S9	S11	S12	S10	S14
	28.46	30.95	32.21	32.30	32.68	33.93	38.11	40.98	41.98	43.18	45.21	46.36

$F=25.66**$

**$p<0.01$, a-f: Duncan's multiple range test.
S9: High chroma red jumpers, S10: Low chroma red jumpers, S11: High chroma blue jumpers, S12: Low chroma blue jumpers, S13: High chroma yellow jumpers, S14: Low chroma yellow jumpers, S15: High chroma red shirts, S16: Low chroma red shirts, S17: High chroma blue shirts, S18: Low chroma blue shirts, S19: High chroma yellow shirts, S20: Low chroma yellow shirts

years, respectively.

Differences in age evaluations of each stimulus in the experiment design B type were studied and its result is shown in ⟨Table 6⟩. Ages by stimuli were categorized into six groups. Low chroma yellow jumpers (S14) in the group a with 46.36 years were evaluated the oldest in age, followed by low chroma red jumpers (S10) and low chroma blue jumpers (S12) in the group a with relatively old age in the age evaluations. High chroma yellow shirts (S19) in the group f with 28.46 years were evaluated the youngest in age. Therefore, low chroma jumpers were evaluated to appear old in age and high chroma yellow polo shirts as clothing that appear the youngest.

V. Conclusion

The purpose of this study was to investigate the differences in image perceptions and age evaluations by clothing style and color of male casual wear. Subjects were 280 female college students from Seoul region. The results of the research are as follows.

First, image levels of male casual wear were extracted as four factors of sociability, conspicuousness, softness and masculinity.

Second, top colors had significant effect only in the conspicuousness evaluations in differences

in the image evaluations by top colors and trouser colors. Light grey jackets and black shirts were perceived as the highest in conspicuousness and grey jackets and white shirts were evaluated as the lowest in conspicuousness. Trouser colors had significant effects on masculinity level and navy blue trousers were shown to have higher masculinity than beige trousers.

Third, clothing styles had significant effects on sociability and softness evaluations in differences in the image perceptions by clothing styles, clothing hue and chroma. Polo shirts were evaluated to have higher sociability and softness than jumpers. Clothing hues had significant effects on the masculinity evaluations and blue was evaluated to be the most masculine color. Chroma had significant effects on both the sociability and conspicuousness levels and high chroma was perceived to be higher in both sociability and conspicuousness than low chroma.

Fourth, sociability had interaction effects in two variables of clothing styles and chroma. Sociability score was perceived similarly in both high chroma and low chroma for polo shirts but sociability was shown higher in high chroma than low chroma for jumpers. Conspicuousness had interaction effects in clothing styles and chroma. The differences were relatively small for polo shirts but the differences were big for jumpers with high chroma

jumpers showing much higher conspicuousness than low chroma jumpers. Conspicuousness had interaction effects in clothing hues and chroma. High chroma yellow had the highest conspicuousness and blue had relatively small differences by hues. Masculinity evaluations had interaction effects in clothing hues and chroma. Masculinity was perceived higher in high chroma than low chroma in blue clothing but masculinity was perceived higher in low chroma than high chroma in red. Sociability evaluations had interaction effects in three independent variables. High chroma red jumpers had the highest sociability and low chroma blue jumpers were shown to have the lowest sociability.

Fifth, age evaluations of perception subjects had significant differences by clothing styles and chroma. Polo shirts were perceived younger in age than jumpers and high chroma was perceived younger in age than low chroma. Age evaluations of perception subjects had interaction effects by clothing hues and chroma. That is, the ages were perceived younger in high chroma than low chroma for red clothing and blue clothing had no age difference by chroma variation. Especially in yellow clothing, high chroma clothing appeared much younger than low chroma clothing. Therefore, it can be stated that large visual differences are displayed in yellow clothing by chroma variation. In achromatic colors, ages were evaluated the youngest in light grey jackets and black shirts and ages were evaluated the oldest in grey jackets and white shirts.

From the above results overall, wearing polo shirts was evaluated more positively than jumpers for men and high chroma clothing was evaluated to be more social than low chroma with high chroma red jumpers especially showing very high sociable feel. Men's high chroma clothing was perceived young in age but it was seen that ages were evaluated younger wearing black shirts than white shirts under the jackets when wearing achromatic jackets.

The limit of the research is not being able to combine various clothing types and clues in clothing colors in creating stimuli and perform com-

prehensive study. In future studies, comparisons should be made using stimuli with various clothing types and clothing colors other than casual wear. In addition, it is thought that a comprehensive research on clothing styles and colors should be performed by systemizing the designs by using various types of shirts and trousers. In future studies, it is required to include facial types and shoes colors and investigate the interaction effects in them.

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