由色彩意象語意量尺間相關分析之亞太國家文化差異

Comparison with Observed Correlation Coefficients for Cultural Differences among Asian Pacific Countries

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台灣,日本,韓國,印尼,中國大陸（北京,西安,上海,廈門,哈爾濱）

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摘 要 Abstract

This is an attempt with observation of correlations between measuring adjectival scales, which were rated by the subjects in 9 regions in 5 Asian Pacific Rim countries. Correlation coefficients for adjectival scales were produced from the ratings for color images stimuli. There were similar responses among all 9 regions, however, obvious differences of concepts have been found too. In the study, subjects were asked to rate merely toward color image and not interrelation between scales. Different concept toward an adjective implicit that there is a different valuation in lifestyle. This was thought to be reflecting Regional cultural differences of subjects who rated the scales. Such as concept of "nice", for instance, From Japanese and Korean students' rating, " honest" is highly correlated "nice". At the mean time, students of Beijing, felt concept of "sharp", "fast", and"active" close to "nice. These examples imply that Japanese and Korean students feel "honest" very important in the life, and Beijing students feel potential and active important in the life.

壹. 前 言 Introduction

色彩引起的心理感覺，會受到時代、習俗文化、民族、個人等許多因素影響，因此色彩心理的研究，無法套用他國的資料，須針對想了解的對象做實際的調查。

1969 年本人帶領的明志工專工業設計科莊、羅、陳同學所做"台灣小學至大學學生色彩喜好調查"，在台灣北、中、南共調查了 2400 名學生。結果發表於 1970 年的畢業專刊，是當時規模最大的色彩喜好研究。1995 年本人再以相同的方式做了一次 2460 人的調查，比較了不同時代，不同經濟及社會情況下，學生色彩喜好的異同，並發現色彩的主觀及受客觀環境影響的喜好情形。為了增加在台灣地區的色彩心理，本人也曾經於 1983 及 1994 前後兩次，使用相同色票，都以大學生為對象做色彩聯想調查。作相隔 11 年的比較。色彩意象的研究較複雜，但可知道更多色彩心理的內容。因此 1986 年以ＳＤ法，以大學生為對象做了色彩意象調查。又在 1988 年 4 月以美國加州兩個大學的學生為對象，10 月以台灣大學生為對象，以相同方式做了色彩意象調查。然後於 1995 年 10 月至 1996 年

1 月，除了台灣之外，在日本、韓國、印尼以及中國大陸的五城市--北京、西安、上海、哈爾濱、廈門等九地區，都以大學生為對象，以相同的色彩刺激及問卷，做了調查。調查統計後，各地大學生對色彩的心理感覺，以ＳＤ意象圖等方式表示，得到許多了解。

本文所提出的報告內容，是由統計的到的相關係數，看出不同地區的受調查學生，重視的事物以及回答的態度有所不同。相信這是反應了不同地區的不同生活文化，並有不同價值觀的結果，因此做了比較和研究，將心得報告於本文。

貳. 調查方法 Method

2.1 調查用刺激 Stimuli：
使用色彩作為調查用刺激。分單色及不同色調的色相環兩種。
單 色 10 色：每張 3.5cm×5.0cm，貼在白色底紙上。
鮮紅（PCCS v2,4R 4.5/14）鮮橙(v5,4YR 6/14)
鮮黃(v8, 5Y 8/13.5) 鮮綠(v12, 4G 5.5/10)
鮮藍(v18, 3PB 3.5/13) 鮮青紫(v20, 9PB 3.5/13)
淺青紫(lt20, 9PB 6.5/8) 白(N9.5) 灰(N5.5) 黑(N1.0)
色相環 5 種：鮮色調(PCCS v2-v24) 淡色調(p2-p24) 淺灰色調 (ltg2-ltg24)
深色調(dp2-dp24) 暗色調(dk2-dk24)
2.2 調查用尺 Scales: 18 對相反意義的形容詞組（雙極形容詞 bi-polar adjectives）因為需要在不同語言的國家調查，因此調查表除了各本國的文字之外，再加英文為基本. 如下:
好－壞 good-bad
重－輕 heavy-light
醜－美 ugly-beautiful
強－弱 strong-weak
粗魯野蠻－和平安祥 ferocious-peaceful
誠實－不誠實 honest-dishonest
硬－軟 hard-soft
年輕－老 young-old
髒－乾淨 dirty-clean

大－小 large-small
積極－消極 positive-passive
愉快－不愉快 pleasant-unpleasant
粗獷－細緻 rugged-delicate
快速－緩慢 fast-slow
宜人的－令人厭惡 nice-awful
男性－女性 masculine-feminine
精明銳利－遲鈍乏味 sharp-dull
2.3 評量尺度 Judgment Steps：
使用 7 階段的評量尺。中央當沒有意見的中性位置。往兩端各為：有 一點，相當，非常心裡感覺強度的階段（參看後頁統計後的意象圖表）
2.4 調查對象 Subjects:9 地區的大學男女學生，共收 1159 份答卷。最多 180 份，最少 125 份。
Color stimuli and adjectival scales were used as measuring tool and 18 pairs of adjectival scales were selected for the use of finding conceptions. Paired adjectives were as the follow:
good-bad, heavy light, cold-hot, ugly-beautiful, strong-weak. honest-dishonest, ferocious- peaceful, hard-soft, young-old, dirty-clean, large-small, active-passive, pleasant-unpleasant, rugged-delicate, fast-slow, nice-awful, masculine-feminine, sharp-dull.

These adjectival pairs were selected from Osgood's publication 'The Measurement of Meaning". In the book, Osgood and his colleagues had sorted out 50 pairs of adjectival scales with heavy factor loading of evaluation, potency and activity. This material had been utilized in many studies. I selected measuring scales from this table on purpose for possible comparisons with other studies.

The scales were printed in English as the core meaning and subjects' native languages were printed accompanying to the English as supplement.

Seven steps used for judgment to the paired adjectives which having inverse meaning. With **Neither** in the middle and **slightly, very, extremely** toward both polar printed above the scale.

The stimuli were 15 color samples included: Ten single colors: Six vivid hues of red, orange, yellow, green, blue, violet and a light violet (PCCS color chips of v2, v5, v8, v12, v20, lt20). Every color chip was 3.5×5.0 cm sized rectangles. These 7 color chips were pasted on a white sheet of paper.

Another 3 neutral color of white, medium gray and black color chips pasted on an another white sheet of paper, making total of 10 single color stimuli.

Five tones of hue circles: Each hue circle contain 12 colors making the circles and pasted on a white sheet of paper.

Five tones were vivid, pale, deep, dark and light grayish tones.

Above color chips used as stimuli were produced by Japan Color Research Institute under Practical Color Coordinate System (PCCS), calls 'Color Matching Card 129a'.

Subjects for this survey were university students studying in Japan, Korea, Indonesia, Taiwan and 5 cities in China, namely: Beijing, Shanghai, Xi'an, Harbin, Xiamen. Average of 150 male and female students in each place participated the in the survey. Total of the subjects from 9 regions were 1159 students.

2.4 調查之施行

調查時將調查色票置於教室牆壁上。讓受調查學生個人手持一份問卷紙，內容包括面頁以及對每一刺激色之每張 18 對問句之評價表格。受調查者不限制時間自由觀察，記下自己的評斷在調查表中。

調查地點首先注意選擇明亮的房間，並以晝光型日光燈補助照明。

Color stimuli were pasted on the wall or laid on the desks in the class room. Subjects with questionnaire sheets in hands, They could move around freely to look at the color stimulus and make their decision to check in the measuring paper. Illumination for the test was mainly natural day light source but supplemented with daylight type fluorescence lamps in the classroom.

2.5 問卷的處理

收集的問卷使用 EXCEL 及 SPSS 統計軟體處理。統計計算後運用為觀察及分析的資料包括：平均值、標準差，以主成份分析法所得問句間相關係數值。分析的因素採用特徵值（Eigenvalue）超過 1 的因素，而並不是指定抽取多少個。因素採用 Varimax 迴轉所得及其負荷數值(Factor loading)。考察抽樣的可靠性觀察了各地的 KMO（Kaiser-Meyer-Olkin）值。

After the measured questionnaires were collected, statistical treatments were applied to

the materials. The soft used for the calculation were Excel SPSS computer softwares. Data gained from the calculation include means, standard variations, and correlation coefficients derived with principal analysis. For factor analysis, engenvalue above 1 were applied, and factors extracted with the varimax rotation.

For observation of sampling adequacy, KMO (Kaiser-Meyer-Olkin) values were observed.

參. 結 果 Results

九地區的問卷收取後，統計處理得到數種可資觀察的資料。包括各地區受調查者對刺激色產生的心裡感覺的意象圖 (Semantic Profiles)，因素分析結果，各調查用詞間相關的相關係數等。本文敘述由相關係數觀察的各地區間的不同反應。由這些不同反應看出不同地區的受調查者，在下意識裡表現的不同價值觀，分別報告於後面。

Statistical treatments applied to the answered sheets, correlation coefficients, factors and other materials produced. To observe the outcome of correlation of an adjectival scale with all others was the main purpose in the paper, the other out come of results will be discussed in other papers.

The observation of the inter-correlations among adjectival scales, it was apparent that there was high degree of consistency in judgments held by different region subjects.

In the procedure of this test, subjects were asked merely to rate his perceived color image from the stimulus on the answering sheets. The conductor did not ask participants to give any particular attention to the relation between adjectival words that constructed the scales. Subjects were not purposely rating the relation between adjectives. However, inter-correlations among scales observed from the correlation coefficients, It can be found that there were consistencies in the judgment. This consistency differs each other for the different regions. It is felt that this is the fundamental attitude of subjects, in other word, this is one of the cultural ethos showed in this ratings.

It is certainly understood that there were individual differences exist among each subjects in each region. The correlations showed here were average value for the region, the overall culture of the region, does not mean each person.

The adjectival scales used in this test were words with significant factor loading of evaluation, potency and activity (factors analyzed by Osgood's study).

In the following pages, the researcher has presented concept of "nice","young" "pleasant" and "good" as examples for discussion. From the SD profile chart, each adjective can be seen how it correlates with the subject adjective. In the first page of this kind, "nice' is presented as the subject. In the chart, nice positioned at the left edge of the chart, other adjectives are lined in the char. If a adjective, its position is very close to left edge (on the edge line, nice positions). This means that the feeling get from this word is close with nice, for instance,

beautiful, good, clean are very close to nice, on the other hand, heavy and hard are far away from nice. In the chart, the zig-zag lines express the whole tendency of the concept of nice. It is also comprehensible that which region conceives what kind of concept toward the word "nice".

3.1 宜人的 Concept of nice

"宜人的 nice "是心裡的感覺好，心裡可以接受，不討厭的心裡感覺。 調查時使用的相對詞是"令人厭惡的 awful "。受調查的人是針對調查色彩表達自己的意見。"宜人的"和其他調查用形容詞的關係，是因素分析的計算過程中，由相關係數顯現出來的。相關係數的數值可以在下頁的表中看出來。表中較黑的字體是相關很高的關係。整體性可以看出來的趨勢是和愉快、乾淨、美、好等形容詞的相關普遍地高。年輕、誠實的形容詞的相關也有一些國家特別高。曲折線的意象圖十分容易地可以看出整體的趨勢。

由意象圖會注意到 5 國中，印尼和其他國家的差異大，中國 5 城市中，西安和哈爾濱（Xian、Harbin，實心和空心的正方形）二地，成為一組，和其他 3 城市在意象圖中的位置相當不同。也就是人的趨勢雖然一樣，但是得到的相關係數值大小不同。差不多都是數值比較小。這表示了評分時，所評的位置都是比較含蓄的位置，表示的意見比較弱，由這裡看出來的是這二地區的受調查者，表示意見的態度不同，比較溫和沒有強烈的意見表達。本人認為這是另一項生活文化的顯現。印尼在這些調查的 5 國中，文化背景最不相同，顯出在意象圖和相關係數的數值中。中國大陸的 5 城市，民族、文化、社會體系應該都是相同的，然而會有不一樣的結果，必定有它的原因。本人推測這是來自生活地區的傳統、社會習慣的關係。同時，

和北京、上海、廈門比較，哈爾濱、西安的經濟情況也不同。富裕地區的人，表示自己的意見較敢清楚地表達出來。這些看法在最後的結論和討論中，本研究者表示了看法。

Tables showed correlation coefficients of nice with all other 17 adjectival scales. 'nice' is a quite common word. Every body knows what does 'nice' means, but there are differences can be found from the coefficient table. For the whole, nice implies agreeable feeling. However, to what extent it is agreeable, or what emphasis there is for to be feeling nice ? This makes difference. Briefly, Japanese and Korean students expressed great concern about honest, correlation coefficient was above 0.90. On the other hand, Among all regions, subjects of Beijing, Shanghai and Xiamen felt sharp and active are quite agreeable as nice with about 0.70 positive correlations. While Japanese only rated 0.08 correlations.

Nice is one of the evaluation adjectival scales, naturally other evaluation scales such as good, pleasant, have high positive correlation with it. On the contrary, ugly, dirty and ferocious scales have high negative correlations with it.

Two charts visualized conception of nice perceived by subjects in 9 regions. The upper chart showed conceptions of students from five countries: Japan, Taiwan, Korea, Indonesia and Beijing for China. The lower chart showed conceptions expressed by students in 5 cities in China. From these table and charts, it can be seen that the over all tendency of the conception of nice are close to young, beautiful, delicate, honest, good and clean.

Besides above mentioned adjectives, there are another tendency can be found that nice tends to give impression as feminine instead of masculine. Among all countries, Indonesians showed highest correlation between feminine and nice. Indonesians also felt nice is quite soft. On the other hand, some countries perceive the feeling of nice toward strong feeling. China for example, Chinese perceived sharp, fast and active is correlated with nice more than other countries. Chinese also selected peaceful as highly correlated with nice - it means that Chinese want peaceful but on the other hand, they feel that one should be strong enough to live in the real life.

The table in the right showed correlation coefficients that nice correlate with other 17 adjectives. Another 2 semantic profiles are showing how "nice" gives image judged by other 17 adjectives.
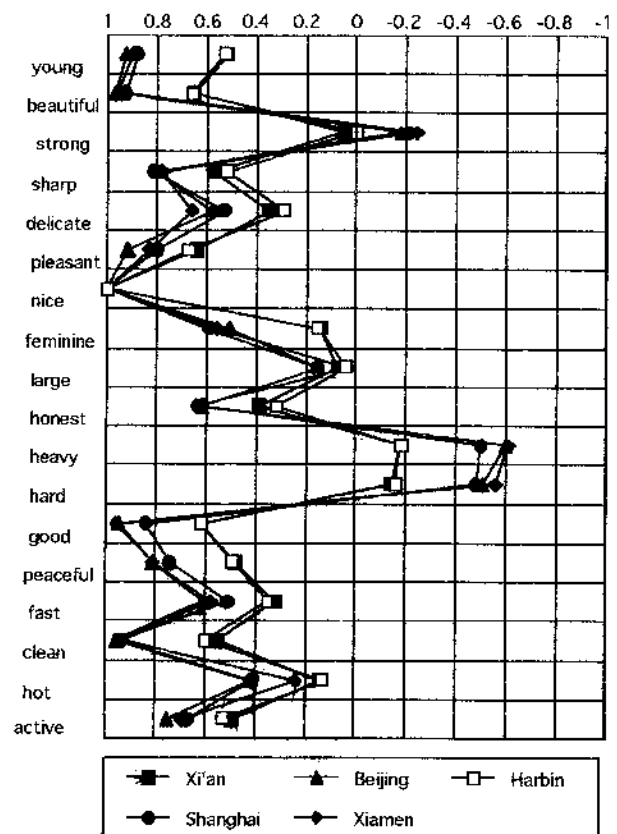
"宜人的 nice" 和其他形容詞的相關係數表及 SD 意象圖

+	Japan	Taiwan	Ch.BJ	Korea	Idnsia	-
nice	1	1	1	1	1	awful
active	0.08	0.4	0.75	0.47	0.11	passive
hot	0.07	0.16	0.42	0.09	0.11	cold
clean	0.94	0.64	0.96	0.96	0.9	dirty
fast	0.4	0.2	0.61	0.43	0.02	slow
peaceful	0.64	0.58	0.81	0.67	0.68	ferocious
good	0.88	0.69	0.95	0.99	0.61	bad
soft	0.25	0.4	0.51	0.56	0.77	hard
light	0.52	0.35	0.6	0.73	0.85	heavy
honest	0.92	0.46	0.62	0.95	0.68	dishonest
large	0.06	-0.06	0.15	0.2	-0.63	small
feminine	0.18	0.33	0.51	0.5	0.86	masculine
pleasant	0.97	0.71	0.92	0.96	0.79	unpleasant
delicate	0.53	0.48	0.58	0.72	0.88	rugged
sharp	0.36	0.36	0.8	0.73	-0.25	dull
strong	-0.17	-0.17	-0.18	0.28	-0.72	weak
beautiful	0.86	0.72	0.97	0.94	0.87	ugly
young	0.64	0.54	0.93	0.87	0.95	old

How nice correlates with other adjectives

Legend: Japan — China(B.J.) — Indonesia — Taiwan — Korea
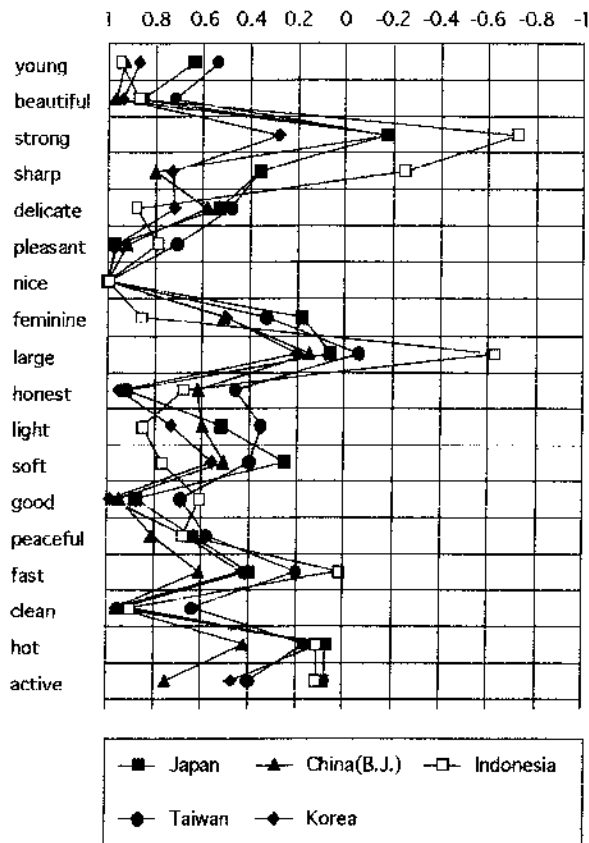
Concept of Nice Perceived in 5 Cities in China

Legend: Xi'an — Beijing — Harbin — Shanghai — Xiamen

3.2 年輕的意象 Concept of Young

由 18 對調查時使用的形容詞間的相關高低，
看出年輕這個字和其他形容詞的相關，可以
由本節的表看出來。

年輕和美、愉快、宜人的、好、乾淨和
熱的相關很高。 這些由 5 國受調查學生，
對色彩意象的評價，計算出來的調查用詞間
的相關係數，並不是有意評分，而是無意的
結果，而這裡看出來的是年輕和一切正面的
形容詞關聯大，相反的，年老就是幾乎什麼
都不好。儒教的社會雖然強調敬老尊賢，但
是在心裡面覺得年輕好是一般的現象。使人
"年輕"的商品，不論是宣傳或是實質有
效，在商場上都常會受到歡迎，也是這種心
理。

From the correlation coefficient table and
the chart, it shows those concept of young is
highly related with beautiful, pleasant, nice,
good, clean and hot.

Concept of young perceived by subjects of
those participated 5 countries having some
diversity yet evident constancy there too.
Comparatively, adjectives beautiful, pleasant,
good and clean have very close image with
young. Correlation coefficients of these
adjectives with young for 5 countries are almost
all above 0.6. Concept Beautiful and young is
very close, there are 4 countries except Taiwan
having above 0.8 correlation coefficients
between the two adjectives. (Correlation
coefficients of Taiwan is 0.57.) Concept of
pleasant with young, Beijing China's
correlation coefficient is 0.99, almost perfectly
matches together. Other 3 cities in China also
have very high correlation coefficients with
young as Beijing. Xiamen is 0.95, Shanghai,
0.90.

Nice with young; 3 countries have above 0.8
correlation coefficients. Japan is 0.64 and
Taiwan is 0.54.

Good and young; 3 countries have above
0.8 correlation coefficients. They are Beijing,
Korea and Japan. Taiwan is the lowest among
these countries, correlation coefficient is 0.51
and Indonesia is 0.63, the second lowest
country.

Does young have image of strong?
Indonesian subjects showed negative concept
on this question. Indonesian has more than 0.6
negative concept about young to be strong. The
other countries showed almost co correlation
between two of young and strong. Correlation
coefficients of these countries are just around 0.

The word young let people associate with
feminine. this is probably that usually feminine
concerns more about looking young. Every
cosmetic product emphasis sales point on this
subject and doing successfully always.
Indonesians relate young and feminine most
closely (0.89 correlation coefficient.) Japanese
associate the least. (only 0.29 correlation
coefficient.)

Young is nothing to do with large and
small. Only Indonesian think young is kind of
small (0.58 correlation coefficient with small.)
Correlation coefficients of other counties are
very low, close to 0.

Most countries think young is soft but
Japanese doesn't think so. Correlation
coefficient between soft and young, Japanese
judged under 0.2, as no correlation. However,
correlation coefficients for other countries are
not very high either. The highest is Indonesia,
the value is 0.68. Taiwan and Korea are just

around 0.4. Beijing is 0.52, other cities in China are around this value too, and 2 cities - Xi'an and Harbin are lower than this value this value.

    Chinese subjects relate young closer to peaceful than subjects in other countries. Correlation coefficients of 3 Chinese cities are having the value around 0.7. Another 2 cities in China and other countries are around 0.4s. Japanese do not have close image between young and peaceful, correlation coefficient is 0.19 from Japanese students.

Concept of Young perceived by 5 countries

Concept of Young Perceived in 5 Cities in China
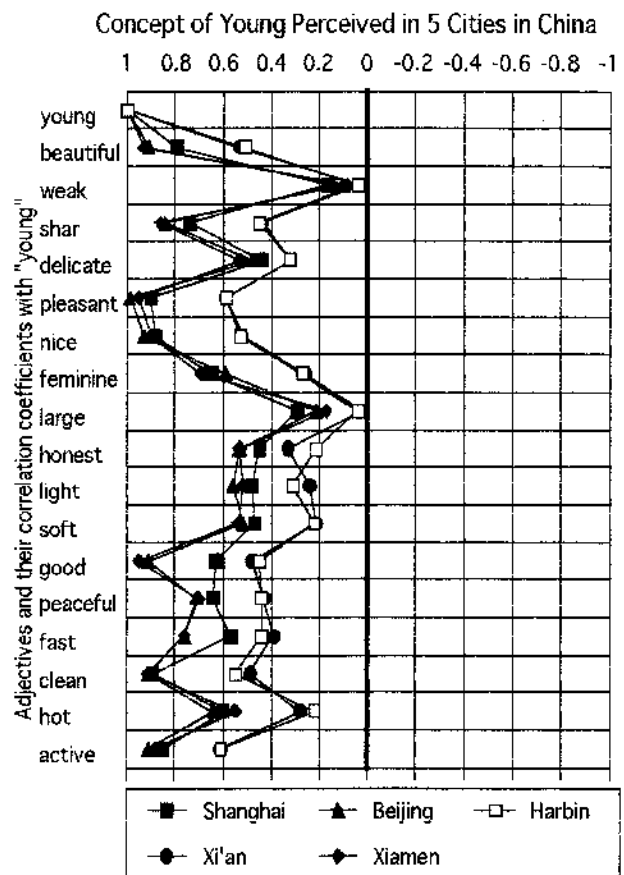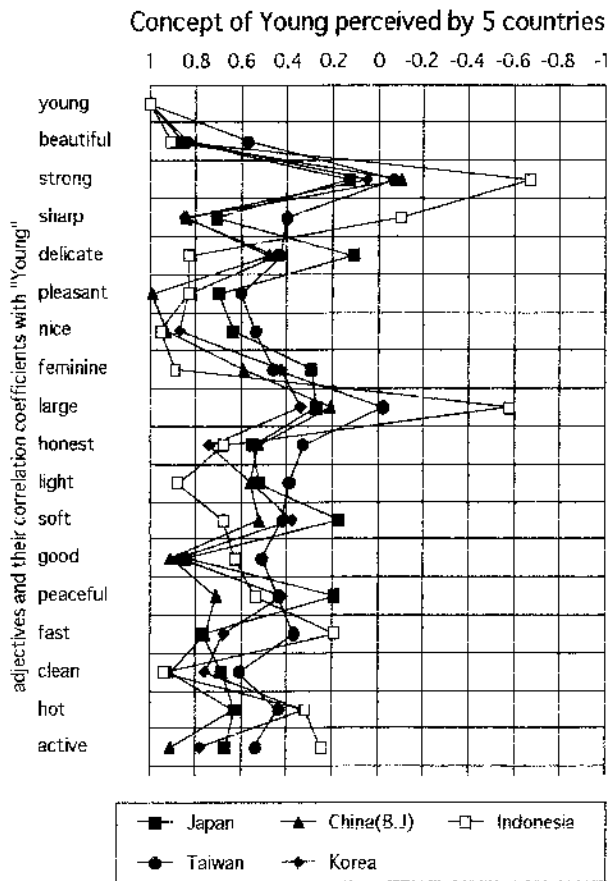
3.3 美和醜 Beautiful and Ugly

美的形容詞和其他形容詞的相關，9調查地區中，8個地區好都排在第一位。宜人的，愉快的，因為差不多和好是同義詞，相關稿不足為奇，其它就是乾淨、年輕都是接著相關高的形容詞。相反地，壞、令人厭惡、不愉快以及老，則是和醜的相關高。較特殊的情形有誠實和美的相關，日本和韓國高，尖銳和美的相關北京高，積極和美的相關，廈門高，而和不安詳和美的相關，哈爾濱高。

下面用英文表示的部份，可以看出各地區相關的情形。形容詞的排序是根據該地區重視的次序排的。

另外還有一個現象，由相關係數的數值讓人玩味的是，相關係數的值，有些地區數值大（例如最高超過0.95，北京、日本、廈門），有些地區數值小（例如最高只有0.70左右，臺灣、西安、哈爾濱）。這表示了不同地區的受調查者，表達意見時態度、自信強弱的不同。

The following list shows every region's correlation coefficients ranking between beautiful and other adjectives. In the list, pleasant and nice have not listed, since these 2 adjectives are very close in feeling by their nature, and always rank at highest position.

Japan: good, clean, young and honest

Korea: good, clean, honest and young.
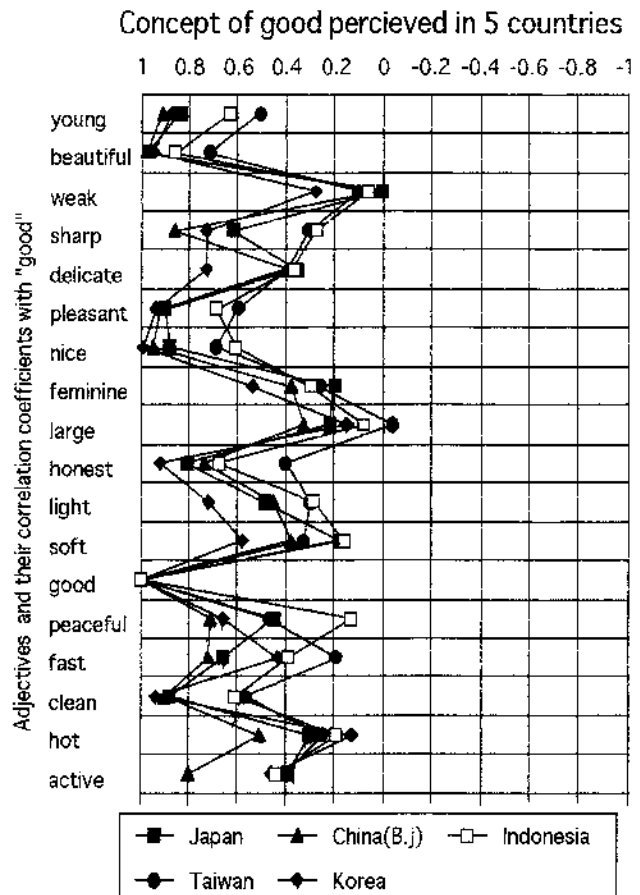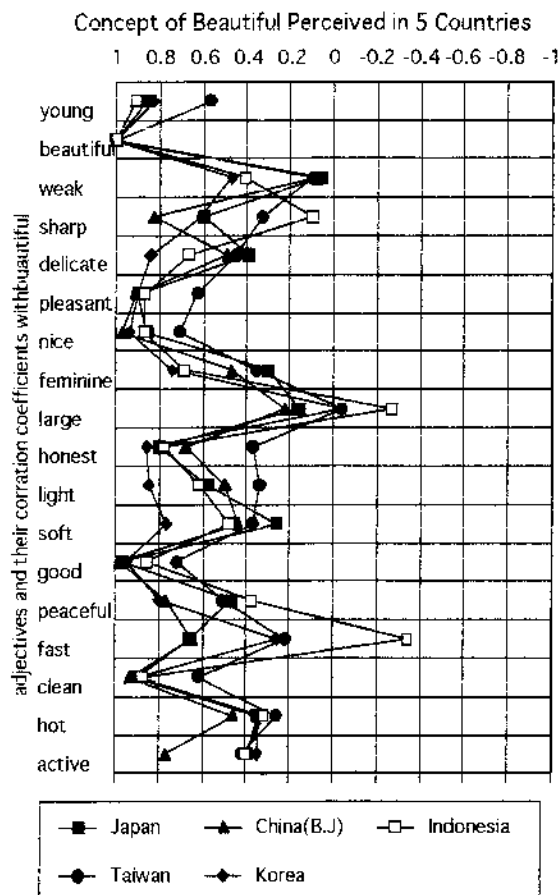
Indonesia: young, clean and good.

Taiwan: good and clean.

Beijing: good, clean, young and sharp

Xian: good, clean and young.

.Xiamen: clean, young, good and active.

Harbin: good, young and peaceful

Shanghai: good, clean and young.

Concept of Beautiful Perceived in 5 Countries

Concept of good percieved in 5 countries

3.4 因素分析 Factor Analysis

下一頁提出 6 地區因素分析結果的例子。本研究中因素分析所用的方法為：以主成份法抽取，特徵值大於 1，並以 Varimax 轉軸得到最後的因素。結果各地區均抽出 3 組因素。各地的因素有類似的地方，加上一些自己的特徵。第一因素韓國和印尼除了評價性（evaluation）形容詞外，多了許多力量性（potency）形容詞。第 1 因素的命名，大約都可以叫喜歡不喜歡的感覺的因素，第 2 因素大約可稱為力量和活潑的感覺的因素，第 3 組因素都含有冷熱 hot-cold 的形容詞，再就是積極、快速、男性等，和心情、体能有關的詞，大約可叫做体會性的因素。

抽出的因素－臺灣 日本 韓國 印尼 北京 西安

臺灣 Taiwan

	Factor 1	Factor 2	Factor 3
clean-dirty	.96445	-.10145	.22706
nice-awful	-.95055	.13774	-.20562
peaceful-ferocious	.92225	.32455	.15235
honest-dishonest	-.91912	.21736	.07385
good-bad	-.90873	.22507	-.30205
beautiful-ugly	.85493	-.25634	.40546
pleasant-unpleasant	.85409	.29373	-.39350
delicate-rugged	.82410	.38466	.38434
light-heavy	.77888	.47085	.32664
soft-hard	.77132	.44025	.44212
young-old	-.73063	.34510	-.56959
fast-slow	-.12005	.94333	-.25978
large-small	.13672	.89810	.13892
sharp-dull	-.34504	.87276	-.14822
strong-weak	.56057	.80533	.11747
active-passive	-.44335	.78594	-.38009
masculine-feminine	.48251	.12238	.83079
hot-cold	.15532	-.52997	.79123

日本 Japan

	Factor 1	Factor 2	Factor 3
PLEASANT	.95062	-.21391	.07628
NICE	.94915	-.15002	.00003
DIRTY	-.94896	.28828	-.03892
HONEST	.93994	-.08374	-.10753
GOOD	.92426	-.02932	.31741
UGLY	-.90651	.12311	-.38205
YOUNG	.73783	-.00854	.65083
FAST	.60454	.51750	.48897
STRONG	-.10003	.95843	.22413
HARD	-.15359	.95107	-.19786
LARGE	.06965	.91327	.28501
MASCLN	-.13144	.87571	-.38222
FEROCIOU	-.53031	.79349	.25509
HEAVY	-.48078	.78232	-.30194
RUGGED	-.51981	.71401	.35805
SHARP	.56660	.59864	.42908
COLD	-.04585	.12323	-.94134
ACTIVE	.18896	.58856	.78110

韓國 Korea

	Factor 1	Factor 2	Factor 3
DIRTY	.96460	-.23849	-.03556
HONEST	-.94145	.22968	.09420
PLEASASN	-.93611	.32251	-.02610
NICE	-.91577	.35773	-.05968
UGLY	.90024	-.20574	.33591
GOOD	-.89836	.35482	-.11239
RUGGED	.89668	.28873	-.31085
HEAVY	.86892	.14382	.38763
FEROCIOU	.84821	.35586	.36428
HARD	.74066	.37587	.54602
FAST	-.11093	.97971	.11379
ACTIVE	-.13097	.97335	-.14342
SHARP	-.47391	.85964	.00564
LARGE	.01487	.81305	.46113
STRONG	.59014	.73877	.29773
YOUNG	-.64208	.67059	-.29655
COLD	.02285	-.04405	.98831
MASCULIN	.59014	.21590	.75472

北京 Beijing

	Factor 1	Factor 2	Factor 3
GOOD	.92291	-.17916	.28555
UGLY	-.90975	.26856	-.24328
NICE	.89403	-.35862	.21964
DIRTY	-.85966	.40584	-.22676
HONEST	.85506	.40392	.07181
SHARP	.82682	.11086	.46889
PLEASANT	.78545	-.24155	.55128
YOUNG	.76792	-.34347	.50949
HARD	-.15334	.94613	-.19967
STRONG	.11420	.94178	.22804
RUGGED	-.32591	.91452	.14603
HEAVY	-.29689	.90440	-.10656
MASCULIN	-.13104	.85230	-.39930
FEROCIOU	-.64246	.73066	.08144
LARGE	.35981	.71682	.46587
COLD	-.22620	.01041	-.94599
ACTIVE	.62890	-.04835	.76433
FAST	.62075	.24600	.71420

印尼 Indonesia

	Factor 1	Factor 2	Factor 3
MASCULIN	.93935	-.26660	-.10879
LARGE	.93626	.09828	.26711
STRONG	.89331	-.15334	.40941
HEAVY	.88304	-.38608	.07188
HARD	.81364	-.30294	.48437
RUGGED	.78272	-.51887	.32285
YOUNG	-.74399	.62298	.22370
NICE	-.72634	.64699	.04041
HONEST	-.17561	.92264	-.01008
GOOD	-.01092	.88049	.21108
UGLY	.44034	-.82682	-.26502
DIRTY	.62841	-.74398	-.02087
PLEASANT	-.39230	.66942	.57645
COLD	.13501	.00235	-.97836
ACTIVE	.18287	.29937	.92707
FAST	.23181	.26865	.91849
SHARP	.50605	.14477	.83628
FEROCIOU	.64695	-.34950	.65709

西安 Xian

	Factor 1	Factor 2	Factor 3
HONEST	.93274	-.00867	.14124
SHARP	.91261	.05923	.32859
UGLY	-.90289	.21061	-.34567
GOOD	.90000	-.14910	.36443
NICE	.89243	-.30380	.27540
DIRTY	-.86515	.45689	-.07307
PLEASANT	.75964	-.24191	.58667
YOUNG	.74147	-.24960	.60076
FEROCIOU	-.73106	.61946	-.14364
FAST	.67412	.18109	.67124
HARD	-.26975	.94249	-.14964
STRONG	.10995	.93014	.30469
LARGE	.15351	.89653	-.06336
HEAVY	-.35805	.88376	.10151
RUGGED	-.60938	.77693	-.05382
MASCULIN	-.40542	.67648	-.50455
COLD	-.18435	-.10955	-.95218
ACTIVE	.62612	-.05086	.76089

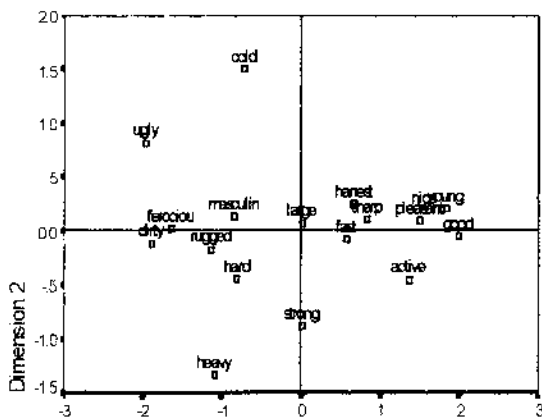## Derived Stimulus Configuration
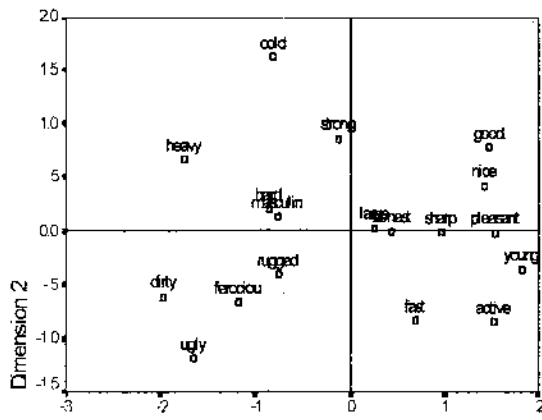
Euclidean distance model

北 京 Beijing

（參考資料）

中國大陸五城市調查結果，
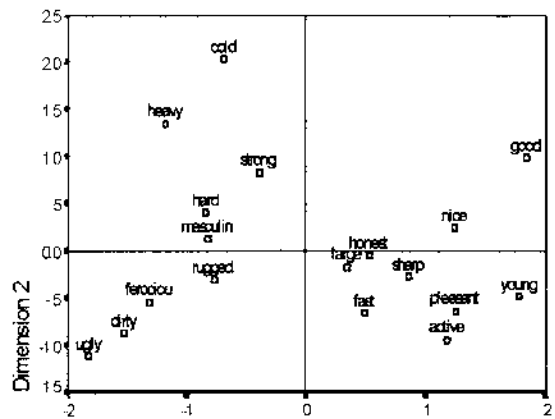各形容用詞相互間關係，
以MDS多向量尺度表示的
圖解

Derived Stimulus Configuration

Euclidean distance model
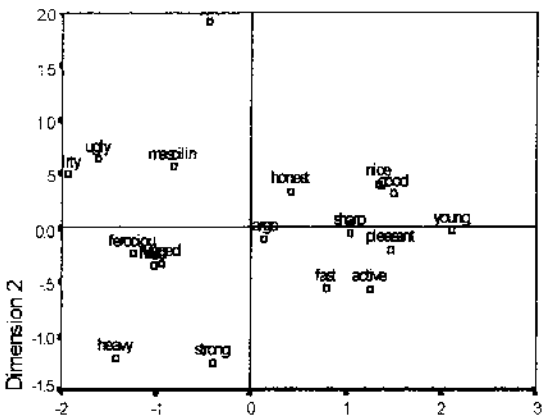

上 海 Shanghai

Derived Stimulus Configuration

Euclidean distance model
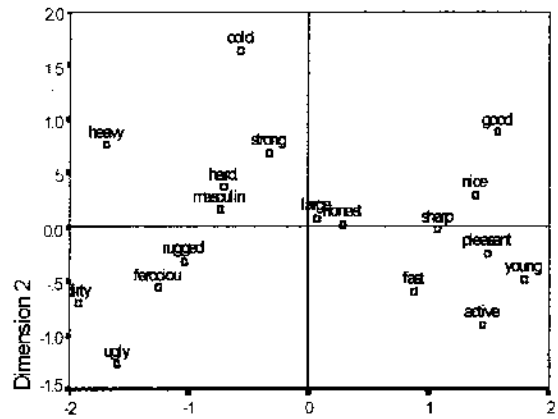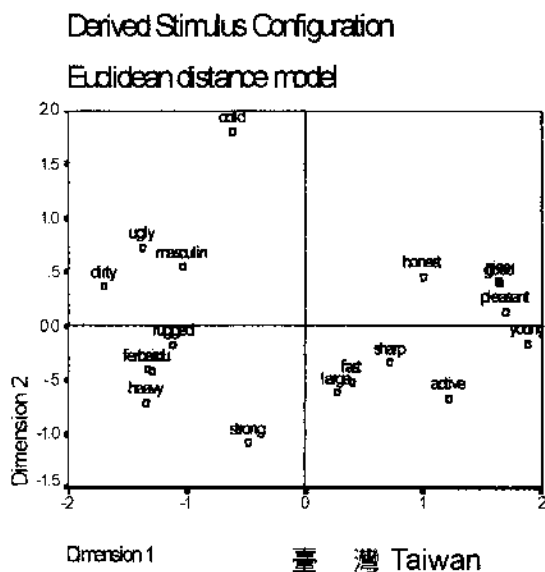

西 安 Xian

Derived Stimulus Configuration

Euclidean distance model

廈 門 Xiamen

## Derived Stimulus Configuration

Euclidean distance model

哈爾濱 Harbin

Derived Stimulus Configuration

Euclidean distance model

臺　灣 Taiwan

（參考資料）

太平洋岸五國調查結果，
各形容用詞相互間關係，
以MDS多向量尺度表示的
圖解

Derived Stimulus Configuration

Euclidean distance model

日　本 Japan

Derived Stimulus Configuration

Euclidean distance model

韓　國 Korea

Derived Stimulus Configuration

Euclidean distance model

北 京 Beijing

Derived Stimulus Configuration

Euclidean distance model

印 尼 Indonesia
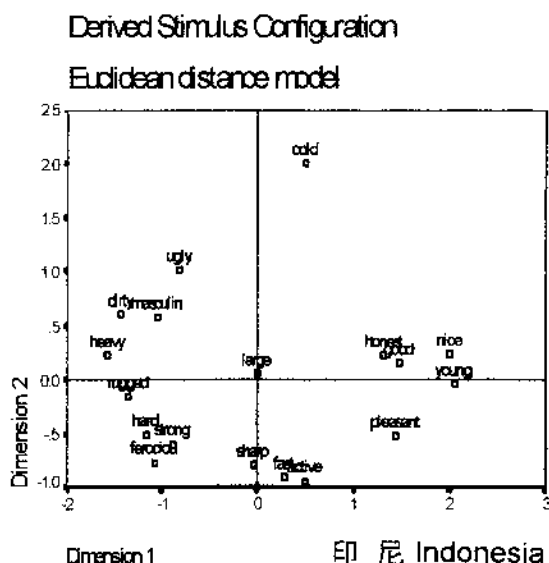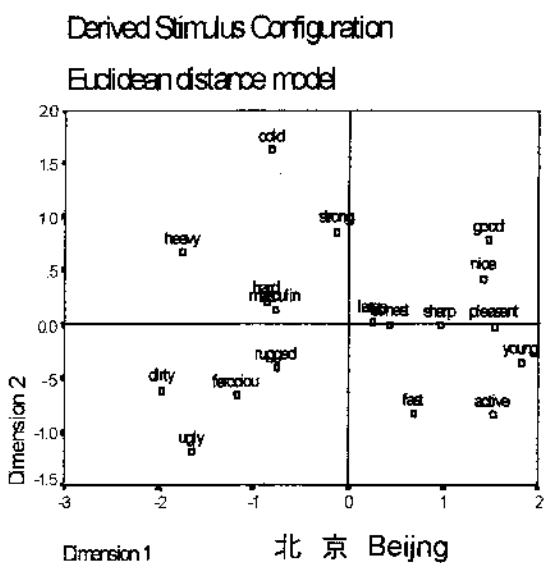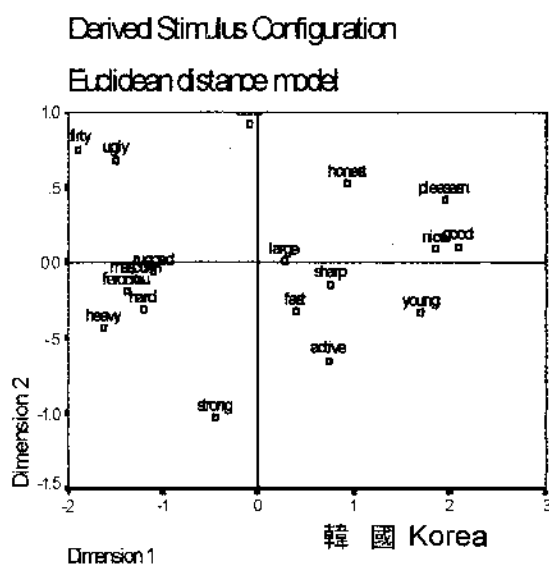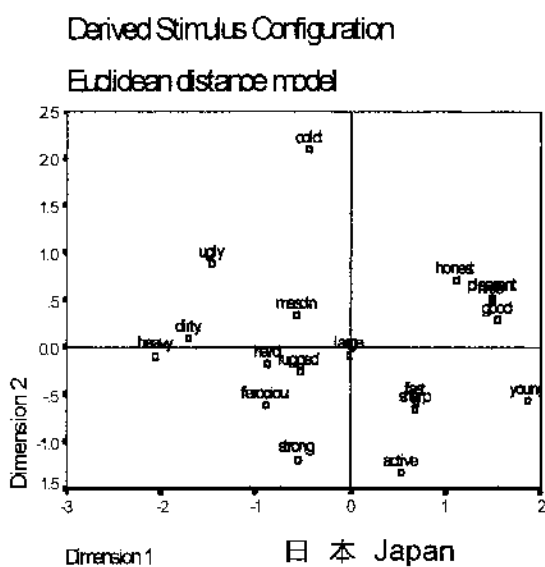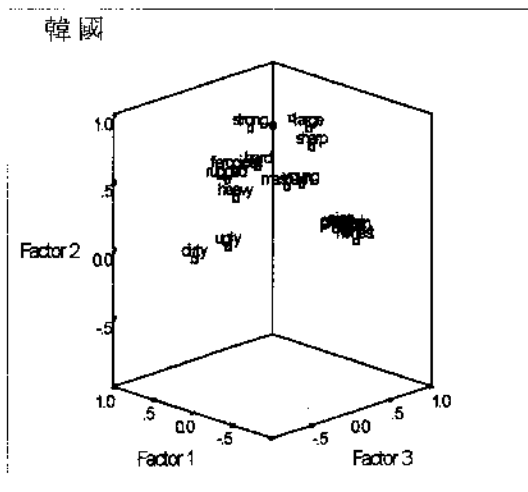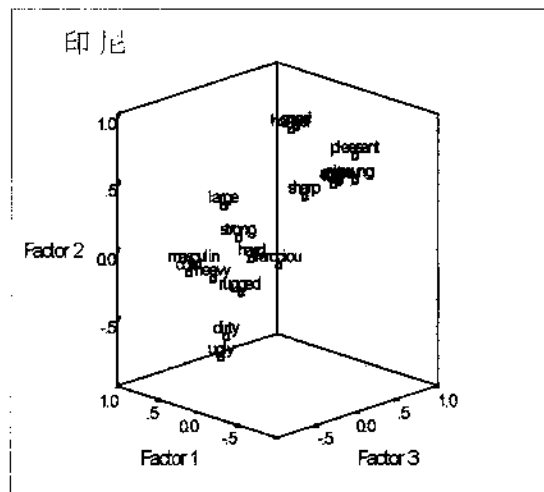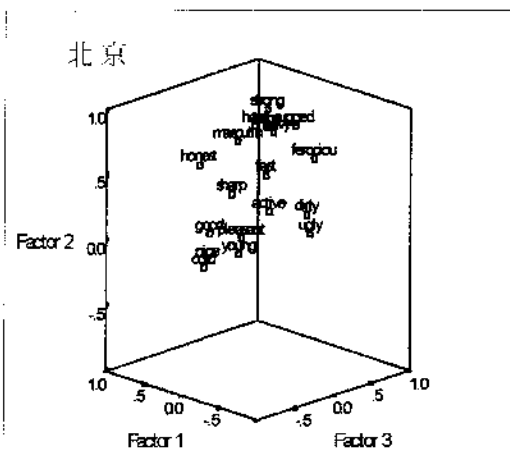
調查之六地區因素，在三度空間的位置關係

（參考資料）

Factor Plot in Rotated Factor Space
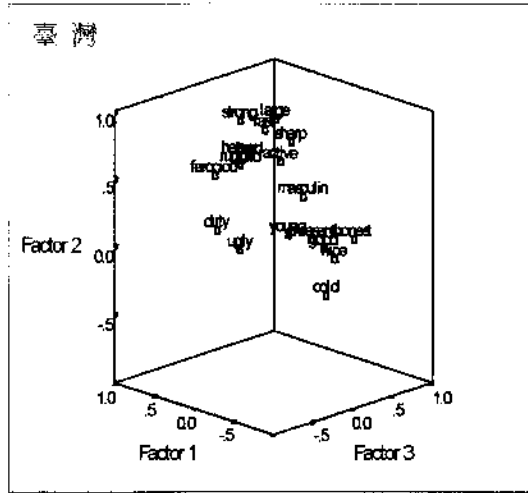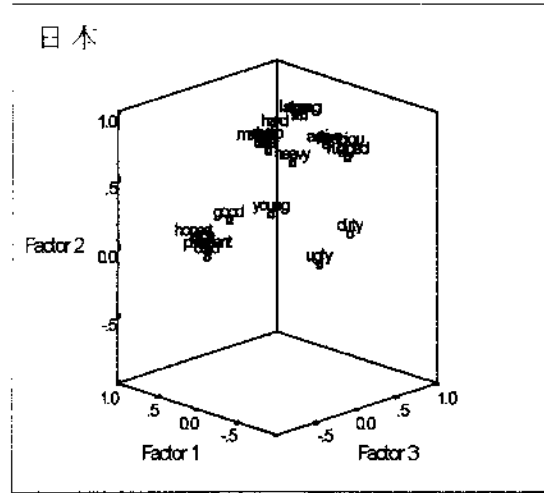
臺灣

Factor Plot in Rotated Factor Space

日本

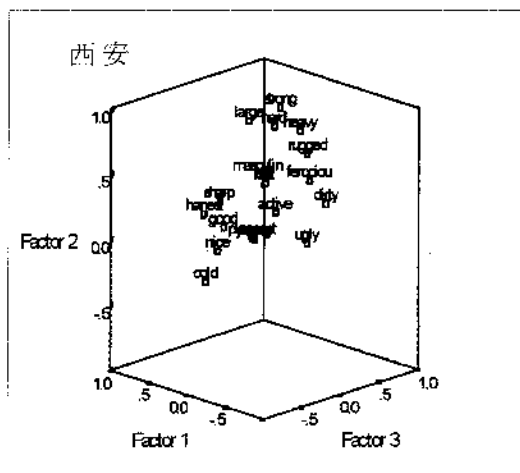Factor Plot in Rotated Factor Space

韓國

Factor Plot in Rotated Factor Space

印尼

Factor Plot in Rotated Factor Space

北京

Factor Plot in Rotated Factor Space

西安

肆．結論及討論 Conclusions and Discussion

本文所提出的報告內容，是在色彩意象調查中，使用相同的調查刺激，和相同評量用形容詞調查表，在因素分析的過程中，產生的形容詞間相關係數，有地區別高低的不同，因此就各地區加於分析、試圖考察其原因和解釋的。原來只要求對色彩做意象的評價，計算出來的調查用詞間的相關係數，並不是有意評分，而是無意的結果，並不是以理性判斷，或故意的評價的，因此更能代表心裡存在的意念。

本人假定形容詞間相關高低的不同是反應了不同地區的受調查者，在生活中重視的事物，生活態度以及價值觀的不同所造成的。也就是反應了不同地區的生活文化的結果。

調查用的刺激，是使用 15 種色彩和 18 對雙極形容詞，7 階段尺度評斷之問卷。調查對象為亞洲太平洋國家，包括日本、韓國、印尼、臺灣以及大陸北京、西安、上海、哈爾濱、廈門五城市。都以大學生作為調查對象。回答卷共 1159 份。本系列研究之基本結果是了解各地對色彩感覺到的意象。本文探討的是生活文化的層面。本系列研究的第一文報告，專就從日本調查得到的資料加以分析的報告。第二文報告了共調查的 9 地區所獲得的色彩意象結果。本文為第二部份的研究。

研究對象的五國中，除印尼外，台灣、日本和韓國，國家雖不同但均有儒家思想的影響。價值觀的判斷，有不少類似的地方，也因此，印尼較顯得不同。但是中國大陸的五城市，雖然在同一國家中，但是不同地區卻是顯出有不同的價值觀，受試者評定時的態度也有不同。這表示了大環境的文化逐相同，但還是有地區別的不同地方文化．本文乃將觀察結果加於敘述，並討論其背景及可能的原因。

收集的問卷使用 SPSS 統計處理。統計計算後運用為觀察及分析的資料包括：平均值、標準差，以主成份分析法所得問句間相關係數值。分析的因素採用特徵值（Eigenvalue）超過 1 的因素，而並不是指定抽取多少個。因素採用 Varimax 迴轉所得及其負荷數值(Factor loading)。考察抽樣的可靠性的 KMO（Kaiser-Meyer-Olkin）值，臺灣 0.65，日本 0.58，韓國 0.62，印尼 0.55，北京 0.59，西安 0.57，上海 0.33，哈爾濱 0.60。上海低，可靠性較差。

由意象圖會注意到 5 國中，印尼和其他國家的差異大，中國 5 城市中，西安和哈爾濱（Xian、Harbin，實心和空心的正方形）二地，成為一組，和其他 3 城市在意象圖中的位置相當不同。也就是大的趨勢雖然一樣，但是得到的相關係數值大小不同。差不多都是數值比較小。這表示了評分時，所評的位置都是比較含蓄的位置，表示的意見比較弱，由這裡看出來的是這二地區的受調查者，表示意見的態度不同，比較溫和沒有強烈的意見表達。以各形容詞和美醜相關的項目為例，相關係數值最高值有些國家超過 0.95（日本、北京、廈門），有些最高只有 0.70 左右（臺灣、哈爾濱）。本人認為這是另一項生活文化的顯現。印尼在這些調查的 5 國中，文化背景最不相同，顯出在意象圖和相關係數的數值中。中國人陸的 5 城市，民族、文化、社會體系應該都是相同的，然而會有不一樣的結果，必定有它的原因。本人推測這是來自生活地區的傳統、社會習慣的關係。同時，和北京、上海、廈門比較，哈爾濱、西安的經濟情況也不同。富裕地區的人，表示自己的意見較敢清楚地表達出來。

The major purpose of this paper is to record observations make during tests with college age persons and relating specific colors with adjectives describing states of mind or attitudes. It is felt that even with products of practical use, the variations in color selection will effect consumer selection in purchasing and consumer satisfaction in use.

In this study, responses of individuals from different cultures (and in some cases from the same culture) are compared. These conceptions, taken from adjectival scales by subjects from different regions were presented in the previous pages. Among the five countries and nine regions included in the study, certain differences were seen in the charts and semantic profiles.

Attempts were made to determine the reasons why subjects from different regions made different choices. It is assumed that differences in life style, behavior, and belief are all involved to some extent in determining the subject's choices. In this survey subjects were merely asked to rate the color image to the adjectives provided, attention not being called to the relationship to the scales themselves.

There is a previous study for relationship between scales, but in this paper the outcome of correlation coefficients was just a by-product of rating for color images. It was thought that this result was natural outcome. In our case, it has important meaning for making analysis and in matters of cultural comparisons. It is believes that varying cultural roots exist which are buried deep in every culture (Professor Miyazaki refer to this as ethos.) This study therefore, may help in a small way in clarify those roots existing in sub-cultures and cultures along the Pacific Rim.

In the previous chapter, the researcher has explained that 3 dimensions of the significant-factor-loading of adjectival words were selected to use as measuring scales. One of the dimensions of psychological vectoring is the evaluation factor. This first factor corresponding to the individual's tendency to approach the stimulus or to avoid it. A positive value of the correlation coefficient indicates a desire to approach (or to posses) the stimulus. A negative value indicates a desire to avoid the stimulus. Carroll used the expression in his article, " reward value". In discussing positive and negative ratings.

Approach also implies acceptance and fondness. High correlation coefficients mean that the two adjectives are similar. For instance, if the word "nice" correlates with "active" in a high degree it means that the subjects value "active" positively, in other words, the subjects favor "active" rather than "passive" in behavior and attitude. (This result was observed in the data from Beijing subjects.). Actually, the word "active" belongs in the category of activity factor. "Active" expressed a situation or a condition, virtually, it is neutral rather than a judgment of feeling. But it a person, who appreciates an image of "active," or considers that he or she should be more active in life, then a correlation of active and nice will probably appear very close in the tests. This simply means that the subject feels there is a "reward value" in "active" as a condition.

The factors of "activity" and "potency" have been defined in the Corroll's paper as "dynamism". "Activity" and "Potency" factors seem to have nothing to do with evaluation as such, however, if they correspond to an attitude toward life in the mind of the subject then evaluative judgment will inevitably occur.

There are, of course, individual attitude toward life which will have infinite variations from person to person. But when shared attitudes toward life become apparent in a region, then these differences become measurable and therefore are predictable and valuable to the researcher. each subject, then, must be viewed as a combination of individual (often unique) attitudes toward life and a pattern of shared attitudes which will affect not only 0atterns of behavior but also the dominant consumer preferences of that particular region.

In the long history of human living the inevitable cokes of behavior, which regulate society have changed according to the rate of acceleration of technological change. From a possible African origin hundreds of centuries have passed with little change in codes of behavior because there was little or no change in the tools and techniques of staying alive. The codes, as safeguards for group living, necessarily placed limits on individual behavior, strong expressions of self-ego or behavior related more to the unique individual attitudes toward life referred to above, are reinforced those shared attitudes and the shared patterns of behavior which were required for social

stability.

伍. 參考資料 References

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中 文 摘 要

在亞洲地區五個國家,使用色彩作爲調查用刺激,以 SD 法作爲調查方法之系列研究中,統計處理後,觀察到意象形容詞間相關之高低,顯現了不同地區的受試者,評價色彩意象時, 不知不覺中顯現了價值觀的不同, 受試者評定時的態度也有輕重的不同。價值觀的判斷以及評定的態度, 除個人因素之外, 會受生活文化的影響。以此本系列研究由另外角度也觸及到不同地區的文化。本文乃將由相關係數觀察的結果加於敘述,並討論其背景及可能的原因。

研究對象的五國中, 除印尼外, 台灣、日本、韓國, 中國, 國家雖不同, 但均有儒家思想的影響。價值觀的判斷, 不少有類似的地方。但是另一方面, 中國大陸的五個城市, 雖然在同一國家中, 不同地區的受試者,評定時態度不同, 也有不同的價值觀。

本系列研究之調查刺激,使用 15 種色彩,18 對形容詞 7 階段尺度評量之問卷。調查對象爲上列國家以及大陸北京、西安、上海、哈爾濱、廈門等五城市的大學生。

本文爲本系列研究之第三文。本系列之研究,除了 1996 年及 1997 年,在日本設計學會研究發表會發表過二次之外, 其他的研究結果報告, 刊登於台北技術學院學報中。