How Chinese adolescent girls perceive gender roles: A psychographic study

Kara Chan
(Corresponding author)
Professor
Department of Communication Studies
Hong Kong Baptist University
Tel: (852) 3411 7836 Fax: (852) 3411 7890
Email: karachan@hkbu.edu.hk

Yu Leung Ng
Research Assistant
Department of Communication Studies
Hong Kong Baptist University
Tel: (852) 3411 8159 Fax: (852) 3411 7890
Email: ny1724@hkbu.edu.hk

JCM Shanghai girls.doc

How Chinese adolescent girls perceive gender roles: A psychographic study

Abstract

Purpose – This study replicates a psychographic segmentation of adolescent girls in Hong Kong. It attempts to see if the segmentation of Hong Kong girls according to the perceptions of gender roles and ideal female images can be generalized to girls in mainland China.

Design/methodology/approach – A convenience sample of 331 Shanghai female secondary school students aged 12 to 20 were asked to answer questions about gender roles, ideal female images, and their liking of international and Chinese brands. Factor analysis, cluster analysis, and discriminant analysis were conducted.

Findings – Four segments of adolescent girls were identified and profiled. They were Conformists, Aggressive pursuers, Image protectors, and Single-handers.

Practical implications –Different marketing communication strategies can be adopted to make global and Chinese national brands more appealing to the different clusters.

Limitations – The data were collected from a non-probabilistic sample of girls from Shanghai, which may not be representative of girls in other mainland Chinese cities or elsewhere in greater China.

Originality/value –This has been the first study to cluster adolescent girls in mainland China based on gender role perceptions.

Key words psychographics, adolescent girls, gender roles, brands, China

Paper type Research paper

Introduction

China today has the world's largest population of girls aged 10 to 19—some 90 million in 2010 (Population Reference Bureau, 2011), which is equivalent to one-third of the total population of the United Status. They represent a huge market for products and services such as clothing, skin care, overseas travel, and media products. How global and local Chinese brands can better relate to the adolescent girls in mainland China by examining their perceptions of ideal female roles and identities? A recent psychographic study on Hong Kong girls generated four clusters labeled as Middle of the roaders, Achievers, Conservatives, and Inactives (Chan and Ng, forthcoming). To what extent the findings of the Hong Kong study can be generalized to China? This study sets out to define the dimensions of the perceptions of gender roles and identities, and to cluster adolescent girls in mainland China according to these perceptions. Furthermore, this study investigates if psychographic segmentation is useful to predict liking of brands. The results will help marketers and policy makers communicate better with adolescent girls about products, services and social concerns.

Market segmentation views a heterogeneous market as a small number of homogeneous market segments (Smith, 1956). It identifies a set of factors which can be used to cluster potential consumers into such homogeneous segments (Wedel and Kamakura, 2000). Demographic segmentation is based on descriptive rather than causal factors (Haley, 1968), whereas psychographic segmentation is based on consumers' personalities, values and lifestyles (Gunter and Furnham, 1992). Psychographic segmentation provides detailed consumption information and reflects consumers' inner factors rather than more superficial demographic descriptors (Tam and Tai, 1998).

Capitalizing on market segments involves identifying useful differences between clusters and similarities within them. Different marketing strategies can be adopted targeting different clusters according to the results of this analysis (Tam and Tai, 1998).

The psychographic segmentation of Chinese females

Previous studies on the psychographics of female Chinese consumers have revealed a continuum of values and lifestyles from traditional to contemporary. Tam and Tai (1998) generated four segments of females in greater China, including Hong Kong, Taiwan, and mainland China. Their largest segment was a conventional females group who adhered strongly to the traditional value of filial piety and emphasized family life. Contemporary females grouped those who had gained financial independence and good jobs. Their searching singles liked to spend time with their friends and on shopping. Followers were a residual described who were not active in social, cultural and physical activities (Tam and Tai, 1998). Sin and his colleagues subsequently developed an alternative segmentation of Hong Kong adult females (Sin et al., 2001). Their individualists were women not willing to be restricted by conservative Chinese values; traditionalists obeyed to their husbands and believed that a great achievement and responsibility in life was bearing babies; pro-societalists were economically independent women who wanted to express their views about societal issues such as environmental protection and social justice. A study of adolescent Chinese girls in Hong Kong developed four segment profiles according to their perceptions of gender roles and ideal female images (Chan and Ng, forthcoming). Middle of the roaders thought females did not need to be responsible for housework nor successful in a career. Achievers pursued their dreams, appreciated their own strengths, and cared about others and the environment.

Conservatives wanted to be a traditional woman. Inactives did not feel any incentive to develop a career or seek relationships (Chan and Ng, forthcoming).

Females' social status in mainland China

Feudal China was a male-centered society. For centuries Chinese women lived submissive or sometimes even oppressed lives. Because society's institutions discriminated against females, many of them could not fight for a better role (Pearson, 1995). Three thousand years ago, *Lessons for Women* by the female intellectual Ban Zhao emphasizing three obediences and four virtues for females. The three obediences refer to obeying her father as a daughter, obeying her husband as a wife, and obeying her son in widowhood; the four virtues for females were morality (knowing her place and acting in compliance with social norms), proper speech (speaking politely and sparingly), a modest manner, and diligent work (assumed to be housework) (Lee, 2000).

During the last decade of imperial China from 1901 to 1911 society started to advocate female education, monogamy, and gender equality (Chan, 2004). After the founding of the People's Republic of China in 1949, women were described by Chairman Mao as "holding up half of the sky" (Mao, 1966), and the Communist Party did in fact take various measures to improve their economic and political status. Indeed, females were enrolled in the general workforce under the principle of equal pay for equal work. Freedom of marriage and equality between males and females were at least nominally ensured (Mao, 1966). The government cultivated de-feminization and created heroic female images as role models, sometimes called the 'Iron Girls'. Plain dressing, a selfless character, masculine strength and revolutionary zeal were traits of the heroines that heavily influenced females at that time (Zhang, 2003).

China today is making enormous effects to promote gender equality and to protect females' legal rights. For example, the Education Law protects females' rights and opportunities in education. The Marriage Law stresses the equal status, equal rights, and equal responsibilities of husband and wife in the family (China Mission to the United Nations, 2012). Today, 71 percent of mainland Chinese women aged 18 to 64 are in employment (Women in China, 2012). That employment rate is much higher than the global average of 53 percent (United Nations, 2010). It has been estimated that China has over 29 million female entrepreneurs (Women in China, 2011). About 20 percent of all entrepreneurs and 40 percent of government officials are women (Xinhua News, 2009). About one-third of the representatives to the National People's Congress and the Chinese People's Political Consultative are female (Chinese Women's Research Network, 2011). So females now occupy influential positions in China's national and social affairs.

However, there is still room for improvement in gender equality. There is still a wide income gap between male and female workers. The average annual income of female workers was only 67 percent of that of males in urban areas and 56 percent in rural areas (Women in China, 2012). Reliance on the Chinese government for jobs in the planned economy is now ending, there is keen competition for jobs in the market sector of the economy, and millions of workers have been laid off. Females have been disadvantaged compared with males in this economic restructuring. More females have been laid off than males and female workers are often forced to retire at a younger age to allow male workers to stay on (Lin, 2003).

Images of women in Chinese advertising

Images of women are of course pervasive in many forms of popular Chinese culture, including advertising. Studies indicate that the gender portrayal of women in Chinese advertising has evolved significantly over the past 15 years. Cheng studied 667 television commercials in mainland China and United States and concluded that Chinese advertising reinforced stereotypes more than its US counterparts. Chinese females were less often portrayed in occupational roles than US females (Cheng, 1997). Similar results were obtained in a content analysis comparing magazine advertisements from China, Thailand and the United States. Chinese and Thai females were more often portrayed in decorative roles while US females were more often portrayed in recreational roles (Zhang et al., 2009). Johansson studied advertisements in two official women's magazines in China and found an increasing number of sexily-dressed Caucasian female models advocating pleasure, beauty and individualism alongside traditional images of Chinese women portraying submissiveness, shyness, softness and gentleness (Johansson, 2001). A content analysis of female images in 164 award-winning television commercials broadcast in mainland China and Hong Kong from 2007 to 2009 was conducted to classify female characters in the commercials into traditional or modern representation based on roles portrayal, appearance, and verbal characteristics. A housewife taking care of the family was an example of a woman in traditional role. A lady being vital and fun was an example of a woman in modern role. The results found that modern representations of women were significantly more frequent than traditional representations. Furthermore, the commercials from mainland China represented women in more a modern light than the Hong Kong ads in terms of their role portrayal, appearance and speech (Wu and Chung, 2011).

Hung and her colleagues identified four types of images of contemporary Chinese women in mainland advertising. Two of these were —the strong professional woman and the urban sophisticate. The strong woman image describes a woman shown as smart, talented and confident, often in a professional or other work setting. Interestingly, a strong woman at the same time maintains her Chinese virtues such as being easy to get along with, sensitive to others' feelings, gentle and non-confrontational. The urban sophisticate image, by contrast, refers to a woman shown as tasteful, distinctive, engaged with the arts, and individualist. She is shown as enjoying luxury, leisure or material possessions (Hung et al., 2007). These two types of images were used more frequently in magazine advertisements. The other two images identified in the study were more traditional and were labeled the cultured nurturer and the flower vase. Among these four types of female images, the strong woman occurred most frequently and appeared in 43 percent of the ads analyzed (Hung et al. 2007).

Research objectives

Adolescence is a crucial transitional stage when girls learn gender roles (Erikson, 1968). The societal norms about what females should be or should do have a strong impact on adolescent girls. Giddens and Pierson (1998) have proposed that established ways of doing things will change when people start to ignore them, replace them, or reproduce them differently. During the last six decades, China has experienced tremendous social and economic change, but to what extent is that change reflected in the perceptions and beliefs about female gender roles among Chinese people, especially among adolescent girls? In what areas are traditional female roles still dominant and in what areas are modern female roles more widely embraced? How do adolescent girls in

China see themselves in relation to others? How do they see their roles in the family? Do adolescent mainland girls desire a career? Do they aspire to get married and raise children? Do they care about their appearance? All are topics with potential marketing relevance.

This quantitative study was designed to answer these questions. The three research objectives were:

1. to define dimensions related to the gender role and identity perceptions of adolescent girls in China;

2. to develop a typology of female adolescent consumers based on their gender role and identity perceptions; and

3. to examine if the typology of female adolescents is able to predict their liking for brands.

Methods

This study was designed to replicate of a psychographic segmentation of adolescent girls previously conducted in Hong Kong (Chan and Ng, forthcoming). It used a convenience sample of female students in their final year in Shanghai high schools. They were recruited through personal contacts. Shanghai was selected because it is one of the most cosmopolitan cities in mainland China. Girls in Shanghai were expected to be more likely to be influenced by western values as well as contemporary gender roles and identities. Students from five Shanghai secondary schools (including one vocational training school) were recruited and asked to complete a paper questionnaire during a normal class period in the presence of the teacher. Participation in the study was voluntary and anonymous. The study was conducted during March 2012.

The questionnaire was presented in Chinese. It included 36 statements about gender roles and identities, six photos depicting female images, and references to six international and six Chinese national brands. The 36 statements about gender roles and identities described female attitudes about work, study, community service, the environment, family, marriage and physical appearance. They were derived from the interviewing transcripts of a qualitative study of perceptions of gender roles among girls aged 15 to 18 in Hong Kong (Chan and Williams, 2012). For example, "Females should appreciate their own strengths", "Females who bear children enjoy a complete life" and "Females should not pursue a slim body at all cost". The statements from the Hong Kong survey were originally in English. Following Brislin's (1986) suggestion, the statements were translated into Chinese. Back-translation was conducted by a second researcher to ensure the resulting instrument could be used in cross-cultural research in the future. Participants were asked to respond to these statements on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). A pilot test of the questionnaire among five Shanghai girls aged 13 to 15 was conducted. All participants found no difficulty in understanding the wordings of the questionnaire.

Six photos representing female images were selected from the internet to represent cute, sporty, homemaking, successful, gorgeous, and sexy females. The participants were asked to indicate to what extent each image represented their ideal using a 5-point Likert-type scale ranging from 1 (absolutely not my ideal image) to 5 (absolutely my ideal image).

Based on their assumed relevance and familiarity to adolescent girls in Shanghai, six international brands and six Chinese brands were selected. Coca Cola, Google,

McDonald's, Disney, Apple and Samsung were selected from the 2011 list of the top 20 global brands (Interbrand, 2011a). China Mobile, China Life, China Construction Bank, Baidu, Anta, and Lenovo were selected from the 2011 list of the best China brands (Interbrand, 2011b). The participants were asked how much they "liked" the brands on a scale of 1 (dislike a lot) to 10 (like a lot).

Demographic data were also collected, including the participant's age, year in school, type of housing, household monthly income, father's and mother's educational level, and respondents' place of usual residence.

Results

Respondents

The respondents were 331 Chinese females aged 12 to 20 studying in Shanghai. The mean age of the sample was 15.3. Fifty-eight percent of them were studying in junior secondary school and 42 percent were studying in senior secondary school. Most of them were living in public housing (24 percent) or in an apartment owned by the family (55 percent). Fifty-two percent of them reported a family monthly income between 10,000 RMB and 40,000 RMB. Forty-two percent earned less and the remaining six percent claimed their family earned more than 40,000 RMB per month. The median per capita disposable income in urban China was 4,780 RMB per month in 2011 (National Bureau of Statistics of China, 2012), though the median for Shanghai was surely much larger. So the sample had much higher average household income than the urban Chinese population as a whole. About half of the participants' father and mother both had tertiary education and a further 30 percent reported that their father and mother both had a senior

high school education. Eighty-three percent of respondents' usual place of residence was Shanghai.

Factor analysis

Exploratory factor analysis was conducted to explore the possible underlying factor structure of the Shanghai adolescent girls' gender role and identity perceptions. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy produced a result of 0.84. The result of Bartlett's test of sphericity was 3821.4, $p \leq 0.001$. It was therefore appropriate to conduct factor analysis. A principal component factor analysis using varimax rotation was performed on the 36-item gender role and identity evaluations.

In the first round of factor analysis, ten factors with eigenvalues greater than one were extracted. Those ten factors accounted for 62.4 percent of the variance. However, the percentage of variance explained and the Cronbach's alphas were low for factors 7, 8, 9, and 10. An inspection of the screeplot revealed a clear break after the sixth factor, again indicating the insignificant contribution of factors 7 to 10 to explaining the total variance. As a result, it was decided to retain six factors for further investigation.

The six-factor solution explained 50.3 percent of the variance. Most variables loaded strongly (> 0.5) on the relevant factors. In view of the screeplot and the Cronbach's alphas, the six-factor solution was adopted. After a comprehensive interpretation and examination of the factor loadings, the six factors were labeled. The Cronbach's alphas of five of the six factors ranged from 0.64 to 0.89, indicating the results were satisfactory for use (Nunnally, 1978). The Cronbach's alpha of the sixth factor was 0.37. The item "Females should be skillful in housework as well as

presentable" in this factor had a negative loading. It was decided to remove this item from the factor. When this item was deleted, the Cronbach's alpha increased from 0.37 to 0.43 and the mean changed from 3.3 to 3.2. The factor analysis results with that one item removed are summarized in Table 1.

[ADD TABLE 1 ABOUT HERE]

Cluster analysis

The respondents were segmented into homogeneous segments based on factor scores on the 36 gender identity items and the six ideal female images. The cluster solution and centroid estimates were obtained by applying Ward's minimum variance method (Gao et al., 2009; Tam and Tai, 1998). A four-cluster solution was selected from alternative analyses with 3 to 7 clusters because it produced interpretable results.

Analysis of variance (ANOVA) was conducted to assess the internal validity of the four-segment result (Gao et al., 2009; Tam and Tai, 1998). The results showed significant differences among the four segments. Discriminant analysis revealed that 87.6 percent of the cases were classified correctly ($p \leq 0.001$). The stability of the cluster results was tested by splitting the sample in half randomly. Discriminant analysis was applied to each half separately (Tam and Tai, 1998). The results revealed that 96.4 percent and 96.0 percent of the cases were classified correctly for the first and second halves of the sample respectively, which confirmed the validity of the four-segment result.

The four psychographic segments were labeled Conformists, Aggressive pursuers, Image protectors, and Single-handers. One-way ANOVA was conducted to test whether there are significant differences among the four segments in gender identity and ideal female image. A post hoc Tukey-Kramer test for honestly significant differences was then

performed because the group sizes of the four psychographic segments were unequal. The harmonic means of the groups sized were used. Table 2 and Figure 1 show the gender identities and ideal female images of the four segments. The superscripts identify the segments significantly different in terms of mean scores in the same row on the gender identity statements or ideal female images. The superscripts are arranged in a way that the group mean with superscript *a* is significantly lower than the group mean with superscript *b*, which is significantly lower than the group mean with superscript *c*.

[ADD TABLE 2 ABOUT HERE]

[ADD FIGURE 1 ABOUT HERE]

Segment profiles

Conformists

This was the largest of the segments (35.2%). *Conformists* showed the lowest scores on 21 of the 36 statements about females' roles and identities. They disagreed the most with statements about active agency and career-orientation when compared with the other three segments. These girls were not strongly interested in realizing their potential and pursuing higher academic and career success. They were unenthusiastic about their appearance, including skin care and what clothes they wear. They agreed with the statement "women rule inside and men rule outside". Overall, they were relatively laid back and waiting for things to happen to them. These adolescent girls were the least likely to choose a successful image as their ideal female image.

Aggressive pursuers

This segment was the second largest (28.6%). Aggressive pursuers showed the highest scores on 22 of the 36 statements about females' roles and identities. In contrast

14

to the Conformists, Aggressive pursuers were goal-oriented enthusiasts. They strongly agreed that females should have their own interests and pursue their dreams. Six of the items on the active agency dimension received mean scores of 4.8 or above among the Aggressive pursuers. Adolescent girls in this segment were kind-hearted. They cared about the environment and perceived that females should participate in voluntary work. Among all four segments, they demonstrated the strongest desire to pursue higher academic qualifications and career success. Overall, they were active, had clear goals and desires, and were career-oriented. They were most likely to choose a successful female as their ideal female image and least likely to choose a sexy image.

Image protectors

This segment incorporated 18.6% of the participants. Image protectors were keen to maintain a good reputation and image. They were more concerned about physical appearance than the other groups. They perceived that females should wear presentable clothes and makeup and have perfect skin. They did not think that females should have babies before marriage or smoke. These adolescent girls endorsed traditional values about female roles in the family. They perceived that housekeeping and motherhood are important factors defining females' roles and identities. They valued the fact that marriage gives a woman a home. Bearing and taking care of children were seen as responsibilities of women. These respondents were least likely to choose the sporty image as depicting their ideal female.

Single-handers

This was the smallest of the segments (17.6%). Single-handers were neither conventional nor contemporary. They hold tepid views about most of the statements

offered about the females' roles and identities. Adolescent girls in this segment were not motivated to appreciate their strengths and purse career or academic success. They did not have a strong attitude toward skin and body care. Single-handers were less likely to endorse traditional female roles in housekeeping and motherhood than the other groups. Among the four segments, these girls were most likely to accept the idea of females staying single. They most often chose a sexy female and least often chose a homemaker as their ideal female image than the other groups.

Segment demographics

Demographic differences among the four segments were tested by chi-square analysis. The results are shown in Table 3. Four of the six demographic variables showed significant Chi-square values. Family incomes and the father's educational level were most likely to relate to a girl's psychographic classification. Over half of the conformists and the image protectors came from families at the lower end of the income range. Aggressive pursuers and single-handers were more likely come from families with high income levels and to have a father with tertiary education. Over 70 percent of the image protectors were younger or in the junior secondary schools. Over half of the single-handers were in the senior secondary schools.

[ADD TABLE 3 ABOUT HERE]

Liking of international and Chinese brands

One-way ANOVA with a post hoc Tukey-Kramer test for differences in group means were conducted to explore the respondents' differences in liking international and Chinese brands. Table 4 summarizes the results. There were no significant differences in liking of international brands among the four segments, but there were significant

16

differences with respect to two of the eight Chinese brands. Post Hoc Tukey-Kramer contrasts showed that image protectors liked the Anta more than the other segments and the single-handers liked it the least among the four segments.

[ADD TABLE 4 ABOUT HERE]

Discussion

Before the discussion of the profiles of the four segments generated from the study, there are two overall patterns that worth mentioning. First, respondents paid much emphasis on self-actualization and kindness. This can be seen from the high score (above 3.4) for all items in the active agency dimension across all four segments. It indicates the strong desire for adolescent girls in mainland China to realize the dreams, develop individual identity, speaking their minds, but at the same time, be nice to others and presentable. We try to label it as "actualization-driven femininity". It is in alignment with studies among senior high school and college students in China that the major life goals includes successful career, happy family, and a powerful country (Xi, 2006). Second, adolescent girl respondents in all four segments found no significant differences in liking of international brands and only significant for 6 out of the 8 Chinese brands. The result indicates that respondents have not developed a strong association between the brands and their self-identities.

There is evidence that adolescent in the western societies developed strong self-brand connection in middle childhood and early adolescence (Chaplin and John, 2005). Using a series of experiments, adolescent respondents were able to incorporate brands into their self-concepts based on the brand personality, user characteristics, or reference

17

group affiliation (Chaplin and John, 2005). The lack of self-brand connections among adolescents in China provides an opportunity for marketers to differentiate themselves by establishing clear brand positioning for different psychographic groups.

Four segments of adolescent girls in China were identified and profiled. It seems that appropriate marketing strategies and advertisements targeting specific psychographic groups of adolescent girls can be devised. Aggressive pursuers are probably the market segment with the greatest economic potential for most marketers. Although this segment is not the largest, they are important to marketers because of their high (albeit self-reported) family incomes. Marketers can use successful female images to attract the attention of this group of girls because a professional and successful woman is their ideal female image. This group is active and emphasizes academic and career success. The existence of aggressive pursuers can be attributed to China's one child per family policy which since 1979 has restricted each couple to one child (Fitzpatrick, 2009). All of their parents lost academic and career opportunities during the China's Cultural Revolution turmoil, so they may now project their unfulfilled hopes and goals onto their only child with undivided attention. Boys become "little emperors", but girls also became little empresses. The one child generation is taught early in life that successful is valued. Purchasing products and brands is a way for them to reduce family pressures and keen competition (Scelzo and Lerman, 2009). When promoting the brands and products, advertisers and marketers need to address these girls' concerns about realizing their dreams and coping with the stress they feel from their parents and society.

It is interesting that the aggressive pursuers highly value kind-heartness and gentleness. They are also keen to be socially responsible with respect to the environment

and the community. This echoes the observation that professional women in China need to reconcile achievement with traditional feminine grace (Hung et al., 2007; Doctoroff, 2012). In view of their strong commitment to the well being of the environment and other people, they should be the target of NGOs recruiting volunteers and of cause-related marketing. Marketers can engage adolescent girls who are successful in academic pursuit to serve as spokespersons. Public relations events that encourage expression of individuality such as designing a poster of the brand-in-use can be attractive to aggressive pursuers.

The second major target segment important to marketers is the conformists. They represent the largest group. Girls in this segment are not interested in pursuing academic and career success, nor interested in caring skin and wearing presentable clothes. The results reveal that most adolescent girls, even in Shanghai, still value traditional female housekeeping and motherhood roles. Because of the perceived importance of family and children to them, marketing appeals to this group should emphasize how the product or service can enable them to be attractive to men and prepare them to be a caring wife and mother. Marketers can communicate to them through love stories and peer approval of the opposite sex. Advertisers and marketers should avoid promoting products and services to this group using sexy, gorgeous female images. Cute females are likely to be more effective. As adolescent girls in this group perceive that females should be responsible for housework and "men are breadwinners; women are homemakers", decorative female images in advertisements can attract their attention. Value-for-money appeals should be effective for promoting brands and products, as most of this large group say they come from low income families.

Image protectors represent great market potential for cosmetic and skin care products. Marketers can distribute on-pack premiums of fashion accessories such as a hair band or a bracelet to encourage product trial. This group is, however, the youngest segment, so their psychographics are probably less stable than those of the other groups. Using cute girl images in the ads will be effective for this group of girls. Their aspiration for perfect skin, a slim body and presentable clothing and their acceptance of makeup probably will make feminine beauty images effective. Advertisers should research their media habits and feed them information and advice about how best to present themselves in social situations. Perhaps because of their limited family incomes, they tend to like Chinese brands.

Single-handers seek autonomy. Although they are active, they are not interested in social causes such as protecting the environment or in participating in community service. Their aspiration for independence, for the enjoyment of food and beverages, and their acceptance of being single make them a potential target group for sophisticated foods (such as fine bakery or chocolate items), as well as for travel and leisure products. Marketers can communicate to them through hedonic appeal or peer approval of the same sex. Marketers can show groups of girls enjoying the brand together. Among the six ideal female images, single-handers like cute female images the most.

These results share some similarities with those of a previous study of adolescent girls in Hong Kong (Chan and Ng, forthcoming). Table 5 represents a summary of the segments both studies generated. The two segments that both studies share are an active and aggressive group, as well as a traditional and conservative group. The size of the conservative group is almost the same in Hong Kong and Shanghai, but the aggressive

group in Shanghai was more than twice the size of that group in Hong Kong. The image protectors and single-handers in the Shanghai study were not found in the Hong Kong study. Similarly, the middle of the roaders and the inactives in the Hong Kong study were not found in Shanghai. These finding suggests that the consumer psychographics of adolescent girls in Hong Kong and Shanghai are different. The results of segmentation in Hong Kong cannot be generalized to the mainland Chinese girls, indicating that marketers should adopt different message strategies in these two markets.

[ADD TABLE 5 ABOUT HERE]

Cute females were the ideal female images of three of the four clusters of respondents. Even the conformists, who valued family and marriage highly, they still preferred a cute image to a homemaking image. This indicates that marketers should consider using cute models to appeal to adolescent girls in China. Further study is needed to explore specific cute attributes that attract adolescent girls' attention and liking.

Contrary to expectations, the four segments did not differ significantly in their liking of international brands. There is indication that single-handers are less likely to appreciate Chinese brands than the other psychographic groups. The lack of differentiation in liking of both international and Chinese brands suggests that the sampled adolescent girls have yet developed a strong self-brand connection. This may be because the brands studied here are not as expressive of personality and identity as, for example, fashion brands. Further study might fruitfully test in greater detail how these psychographic segments associate with brands of more expressive products. The weak self-brand connection provides an opportunity for marketers to establish a unique brand positioning among adolescent girls.

References

Brislin, R.W. (1986), "The wording and translation of research instruments", in Lonner, W.J. and Berry, J.W. (eds.), *Field Methods in Cross-cultural Research,* Sage, Beverly Hills, CA, pp. 137–64.

Chan, K. and Williams, R.B. (2012), "Adolescent girls' perceptions of gender roles and gender identities: A qualitative study", unpublished working paper.

Chan, K. and Ng, Y.L. (forthcoming), "Segmentation of Chinese adolescent girls using gender roles and ideal female images", *Journal of Consumer Marketing*.

Chan, S.C. (2004), A *History of the Women's Movement in Modern China* (2nd ed.), Modern Chinese Press, Taipei (in Chinese).

Chaplin, L.N. and John, D.R. (2005), "The development of self-brand connections in children and adolescents", *Journal of Consumer Research*, Vol. 32 No. 1, pp. 119–29.

Cheng, H. (1997), "Holding up half of the sky? A sociocultural comparison of gender-role portrayals in Chinese and US advertising", *International Journal of Advertising*, Vol. 16 No. 4, pp. 295–319.

Chinese Women's Research Network (2011), "350 million women at work", available at http://en.wsic.ac.cn/academicnews/3492.htm

Doctoroff, T. (2012), *What Chinese Want: Culture, Communism and China's Modern Consumer*, Palgrave Macmillan, New York, NY.

Erikson, E. (1968), *Identity, Youth, and Crisis*, Norton, New York, NY.

Fitzpatrick, L. (2009), "A brief history of China's one-child policy", *Time*, July 27, available at http://www.time.com/time/world/article/0,8599,1912861,00.html

Gao, L., Norton, J.T., Zhang, Z.M. and To, K.M. (2009), "Potential niche markets for luxury fashion goods in China", *Journal of Fashion Marketing and Management*, Vol. 13 No. 4, pp. 514–26.

Giddens, A. and Pierson, C. (1998), *Conversations with Anthony Giddens: Making Sense of Modernity*, Polity, Cambridge.

Gunter, B. and Furnham, A. (1992), *Consumer Profiles: An Introduction to Psychographics*, Routledge, London; New York.

Haley, R.I. (1968), "Benefit segmentation: A decision-oriented research tool", *Journal of Marketing*, Vol. 32, July, pp. 30–5.

Hung, K.H., Li, S.Y., and Belk, R.W. (2007), "Global understandings: Female readers' perceptions of the new woman in Chinese advertising", *Journal of International Business Studies*, Vol. 38 No. 6, pp. 1034–51.

Interbrand (2011a), "2011 ranking of the top 100 brands", available at http://www.interbrand.com/en/best-global-brands/best-global-brands-2008/best-global-brands-2011.aspx

Interbrand (2011b), "Best-in-class to world class best China brands 2011", available at: http://interbrand.com/en/Interbrand-offices/Interbrand-Shanghai/BestChinaBrands2011.aspx

Johansson, P. (2001), "Selling the 'modern women': Consumer culture and Chinese gender politics", in Shoma, M. (ed.), *Images of the 'Modern Women' in Asia*, Curzon Press, Surrey.

Lee, H.C. (2000), *Education in Traditional China: A History*, Brill, Boston.

Lin, J. (2003), "Chinese women under economic reform: Gains and losses", *Harvard Asia Pacific Review*, Vol. 7 No. 1, pp. 88–90.

Mao, T.T. (1966), *Quotations from Mao Tse Tung*, Peking Foreign Languages Press, Beijing.

National Bureau of Statistics of China (2012), "Income of urban and rural residents in 2011", available at http://www.stats.gov.cn/english/pressrelease/t20120130_402787464.htm

Nunnally, J.C. (1978), *Psychometric Theory* (2nd ed.), McGraw-Hill, New York.

Pearson, V. (1995), "Goods on which one loses: Women and mental health in China", *Social Science and Medicine*, Vol. 41 No. 8, pp. 1159–73.

China Mission to the United Nations (2012), "Gender equality and women's development in China", available at http://www.china-un.ch/eng/bjzl/t210715.htm.

Population Reference Bureau (2011), "China releases first 2010 census results", available at http://www.prb.org/articles/2011/china-census-results.aspx

Scelzo, T. and Lerman, D. (2009), "Little emperors grown up: A case study of cosmetic usage", *Young Consumer*, Vol. 10 No. 2, pp. 110–19.

Sin, Y.M., So, L.M., Yau, H.M. and Kwong, K. (2001), "Chinese women at the crossroads: An empirical study on their role orientations and consumption values in Chinese society", *The Journal of Consumer Marketing*, Vol. 18 No. 4, pp. 348–67.

Smith, W. (1956), "Product differentiation and market segmentation as alternative marketing strategies", *Journal of Marketing*, Vol. 21, July, pp. 3–8.

Tam, L.M. and Tai, H.C. (1998), "The psychographic segmentation of the female market in greater China", *International Marketing Review*, Vol. 15 No. 1, pp. 61–77.

United Nations (2010), "Gender inequality persists in China", available at http://www.un.org.cn/cms/p/news/27/1346/content.html

Wedel, M. and Kamakura, W.A. (2000), *Market Segmentation: Conceptual and Methodological Foundations* (2nd ed.), Kluwer Academic Publishers, Norwall, MA.

Women of China (2011), "China has 29 million women entrepreneurs", available at http://www.womenofchina.cn/html/womenofchina/report/135473-1.html

Women of China (2012), "Economic and social status of Chinese women raised", available at http://www.womenofchina.cn/html/womenofchina/report/134737-1.html

Wu, D.D. and Chung, M.K. (2011), "Hybridized images: Representations of the 'modern woman' across mainland China and Hong Kong TV commercials", *Journal of Asian Pacific Communication*, Vol. 21 No. 2, pp. 177–95.

Xi, J. (2006), "Introduction to Chinese youth", in Xi, J., Sun Y. and Xiao, J.J. (eds.), *Chinese Youth in Transition*, Ashgate Publishing Company, Burlington, pp. 79–96.

Xinhua News (2009), "Feature: Women's changing status in China", available at http://news.xinhuanet.com/english/2009-03/07/content_10959751.htm

Zhang, J. (2003), "Gender in post-Mao China", *European Review*, Vol. 11 No. 2, pp. 209–24.

Zhang, L., Srisupandit, P.T., and Cartwright, D. (2009), "A comparison of gender role portrayals in magazine advertising: The United States, China and Thailand", *Management Research News*, Vol. 32 No. 7, pp. 683–700.

Table 1. Summary of factor analysis results

Items	Means	Factor loadings
Factor 1: Active agency	*4.2*	
(17.3% of variance explained; α = 0.89)		
Females should appreciate their own strengths	4.3	.74
Females should have courage to express their views	4.2	.73
Females should be truthful to themselves	4.4	.72
Females should have their own interests and hobbies	4.4	.68
Females should have good manners	4.5	.66
Females should pursue their dreams	4.5	.66
Females have a responsibility to protect the environment	4.1	.65
Females should be kind-hearted	4.5	.62
Females should participate in voluntary work	3.8	.56
Females should accept their body image	3.8	.55
Females should be knowledgeable in money management	4.0	.55
Females should exercise often	4.1	.55
Females should earn their living and enjoy economic independence	4.2	.41
Females should not pursue a slim body at all cost	3.8	.37
Factor 2: Housekeeping and motherhood	*2.7*	
(7.6% of variance explained; α = 0.70)		
Females should be responsible for housework	2.4	.72
"Men are breadwinners; women are homemakers" is appropriate	2.3	.71
Taking care of children is the sole responsibility of mothers	2.2	.66
Females who bear children enjoy a complete life	2.6	.61
Marriage gives a woman a home	3.2	.49
Females should be gentle	3.6	.35
Factor 3: Career-orientation	*3.8*	
(7.0% of variance explained; α = 0.74)		
Females should attain higher academic qualifications	3.8	.71
It is necessary for females to be knowledgeable	4.1	.62
It is important for females to be successful in their careers	3.7	.60
Factor 4: Perfect body and skin	*3.7*	
(7.0% of variance explained; α = 0.64)		
Females should have flawless skin	3.2	.66
It is fashionable for females to have a slim body	3.1	.66

Females should wear makeup on social occasions	3.5	.63
Females should wear presentable clothes	4.4	.47
Women should have close female friends	4.2	.36
Factor 5: Natural and decent outlook	*3.7*	
(6.8% of variance explained; α = 0.65)		
Females should not have cosmetic surgery	3.6	.73
Females should not wear heavy makeup	3.6	.70
Females who wear sexy clothes are inviting trouble	3.6	.58
Females should not have babies before marriage	3.8	.54
Females should not smoke, as it affects their image	4.1	.51
Factor 6: Autonomous	*3.2*	
(4.6% of variance explained; α = 0.43)		
Females can eat and drink extravagantly if they want to	3.3	.78
It is appropriate for females to stay single	3.1	.56

Note: 5-point scale (1 = strongly disagree; 5 = strongly agree).

Table 2. Gender identity items and ideal female images of the four segments

Variables	Conformists n = 102	Image protectors n = 54	Aggressive pursuers n = 83	Single-handers n = 51	*F* value
Gender identity items					
Factor 1: Active agency					
Females should appreciate their own strengths	3.9[a]	4.3[b]	4.8[c]	4.4[b]	38.6***
Females should have courage to express their views	3.8[a]	4.1[b]	4.7[c]	4.5[c]	34.4***
Females should be truthful to themselves	3.9[a]	4.4[b]	4.8[c]	4.7[c]	31.6***
Females should have their own interests and hobbies	3.9[a]	4.6[b]	4.9[c]	4.4[b]	52.1***
Females should have good manners	4.1[a]	4.7[b]	4.9[b]	4.3[a]	37.9***
Females should pursue their dreams	4.0[a]	4.7[b]	4.9[b]	4.8[b]	56.4***
Females have a responsibility to protect the environment	3.7[a]	4.2[b]	4.7[c]	3.9[ab]	43.1***
Females should be kind-hearted	4.2[a]	4.6[b]	4.8[c]	4.2[a]	23.7***
Females should participate in voluntary work	3.4[a]	3.7[a]	4.4[b]	3.7[a]	27.0***
Females should accept their body image	3.7[a]	3.6[a]	4.2[b]	3.8[ab]	6.7***
Females should be knowledgeable in money management	3.5[a]	4.1[b]	4.7[c]	4.0[b]	67.6***
Females should exercise often	3.8[a]	4.2[bc]	4.5[c]	3.9[ab]	19.3***
Females should earn their living and enjoy economic independence	3.7[a]	4.4[b]	4.7[c]	4.4[b]	40.4***
Females should not pursue a slim body at all cost	3.5[a]	3.6[a]	4.2[b]	3.9[ab]	10.4***
Factor 2: Housekeeping and motherhood					
Females should be responsible for housework	2.8[c]	2.5[bc]	2.4[b]	1.7[a]	17.5***
"Men are breadwinners; women are homemakers" is appropriate	2.7[c]	2.4[bc]	2.1[ab]	1.8[a]	15.6***
Taking care of children is the sole responsibility of mothers	2.5[b]	2.9[b]	1.8[a]	1.4[a]	32.9***
Females who bear children enjoy a complete life	2.7[b]	2.8[b]	2.5[ab]	2.2[a]	4.2**

Marriage gives a woman a home	3.1^{ab}	3.4^{b}	3.3^{b}	2.9^{a}	3.2*
Females should be gentle	3.5^{ab}	4.0^{c}	3.8^{bc}	3.1^{a}	10.0***
Factor 3: Career-orientation					
Females should attain higher academic qualifications	3.4^{a}	4.0^{bc}	4.3^{c}	3.8^{b}	19.5***
It is necessary for females to be knowledgeable	3.5^{a}	4.4^{bc}	4.6^{c}	4.1^{b}	46.4***
It is important for females to be successful in their careers	3.4^{a}	3.9^{b}	4.2^{b}	3.4^{a}	18.7***
Factor 4: Perfect body and skin					
Females should have flawless skin	3.0^{a}	3.6^{b}	3.2^{ab}	3.2^{ab}	5.6**
It is fashionable for females to have a slim body	2.9	3.2	3.1	3.1	2.3
Females should wear makeup on social occasions	3.2^{a}	3.9^{b}	3.6^{b}	3.8^{b}	9.9***
Females should wear presentable clothes	4.1^{a}	4.7^{c}	4.8^{c}	4.4^{b}	24.3***
Women should have close female friends	3.9^{a}	4.3^{b}	4.6^{b}	4.4^{b}	14.2***
Factor 5: Natural and decent outlook					
Females should not have cosmetic surgery	3.5	3.4	3.8	3.4	1.8
Females should not wear heavy makeup	3.5^{a}	3.2^{a}	4.1^{b}	3.5^{a}	11.3***
Females who wear sexy clothes are inviting trouble	3.4^{ab}	3.8^{bc}	3.9^{c}	3.3^{a}	8.4***
Females should not have babies before marriage	3.5^{a}	4.3^{b}	4.1^{b}	3.6^{a}	12.2***
Females should not smoke, as it affects their image	3.8^{b}	4.6^{c}	4.5^{c}	3.3^{a}	24.1***
Factor 6: Autonomous					
Females can eat and drink extravagantly if they want to	3.1^{ab}	2.9^{a}	3.5^{b}	3.5^{b}	4.7**
It is appropriate for females to stay single	3.0^{ab}	2.9^{a}	3.3^{b}	3.4^{b}	4.9**

Ideal female images

cute	3.7	3.8	3.6	3.6	1.0
sporty	3.0^{ab}	2.7^{a}	3.3^{b}	2.9^{a}	6.7***
homemaking	3.2^{b}	3.1^{b}	3.4^{b}	2.7^{a}	6.1**
successful	3.1^{a}	3.2^{a}	3.8^{b}	3.5^{ab}	8.5***
gorgeous	2.5	2.5	2.6	2.7	0.6
sexy	2.2^{ab}	1.8^{a}	1.8^{a}	2.4^{b}	6.3***

Notes: $N = 290$. 5-point scale (1 = strongly disagree; 5 = strongly agree).
Means in the same row that do not share superscripts differ at the $p \leq 0.05$ level of confidence in the Tukey-Kramer test of group means.
*indicates significance at the $p \leq 0.05$ (** $p \leq 0.01$, *** $p \leq 0.001$)
level of confidence.
a < b < c.

Table 3. Demographic characteristics of the four segments

Variables	Conformists n = 102 (%)	Image protectors n = 54 (%)	Aggressive pursuers n = 83 (%)	Single-handers n = 51 (%)	χ^2 value
Age					10.1*
12-15	61.8	70.4	55.4	41.2	
16-20	38.2	29.6	44.6	58.8	
Grade					13.6**
Junior 1–3 (equivalent to US grade 7–9)	62.7	72.2	53.0	39.2	
Senior 1–3 (equivalent to US grade 10–12)	37.3	27.8	47.0	60.8	
Type of housing					9.3
Public rental	21.6	33.3	26.3	15.7	
Privately owned	53.9	51.9	60.0	60.8	
Private rental	10.8	9.3	5.0	11.8	
Others	13.7	5.6	8.8	11.8	
Family monthly income (RMB)					28.2**
under 10,000	52.0	51.0	38.8	23.5	
10,001–20,000	33.3	25.5	43.8	52.9	
20,001–40,000	10.8	15.7	16.3	7.8	
over 40,001	3.9	7.8	1.3	15.7	
Father's educational level					21.2*
Primary education	1.0	1.9	2.4	5.9	
Junior high education	24.5	13.0	7.2	5.9	
Senior high education	28.4	37.0	32.5	23.5	
Tertiary education	46.1	48.1	57.8	64.7	
Mother's educational level					14.9
Primary education	5.9	7.4	1.2	3.9	
Junior high education	24.5	22.2	15.7	7.8	
Senior high education	31.4	27.8	30.1	25.5	
Tertiary education	38.2	42.6	53.0	62.7	

Place of usual residence					4.3
Shanghai	85.3	77.8	89.0	78.4	
Others	14.7	22.2	11.0	21.6	

Note: *indicates significance at the $p \leq 0.05$ (** $p \leq 0.01$) level of confidence.

Table 4. Liking of international and Chinese brands among the four segments

	Conformists n = 101	Image protectors n = 54	Aggressive pursuers n = 83	Single- handers n = 51	*F* value
International brands					
Coca Cola	5.8	5.8	5.7	5.0	1.2
Google	6.2	6.8	7.1	6.0	2.5
McDonald's	6.6	6.7	6.8	6.8	0.1
Disney	7.5	7.4	7.6	7.1	0.4
Apple	8.0	8.7	8.2	8.3	1.2
Samsung	6.9	6.6	6.6	5.8	2.0
Chinese brands					
China Mobile	6.8	6.9	7.0	7.0	0.1
China Life	4.9	5.2	4.8	4.5	0.6
China Construction Bank	5.5	6.2	6.1	5.4	1.5
Baidu	8.5	8.7	8.6	8.2	0.7
Anta	5.5[b]	5.8[b]	5.6[b]	4.3[a]	3.5*
Lenovo	6.4	6.4	6.4	5.3	2.7*

Notes: N = 289. 10-point scale (1 = strongly dislike; 10 = strongly like).
Means in the same row that do not share superscripts differ at the *p* ≤ 0.05 level of confidence in a Tukey-Kramer test of group means.
* *p* ≤ 0.05.
a < b.

Table 5. A comparison of two studies segmenting Chinese adolescent girls

Shanghai girls	Hong Kong girls[a]
	Middle of the roaders (40%)
	Inactives (14%)
Conformists (35%)	Conservatives (35%)
Aggressive pursuers (29%)	Achievers (12%)
Single-handers (18%)	
Image protectors (19%)	

[a]Source: Chan and Ng, forthcoming

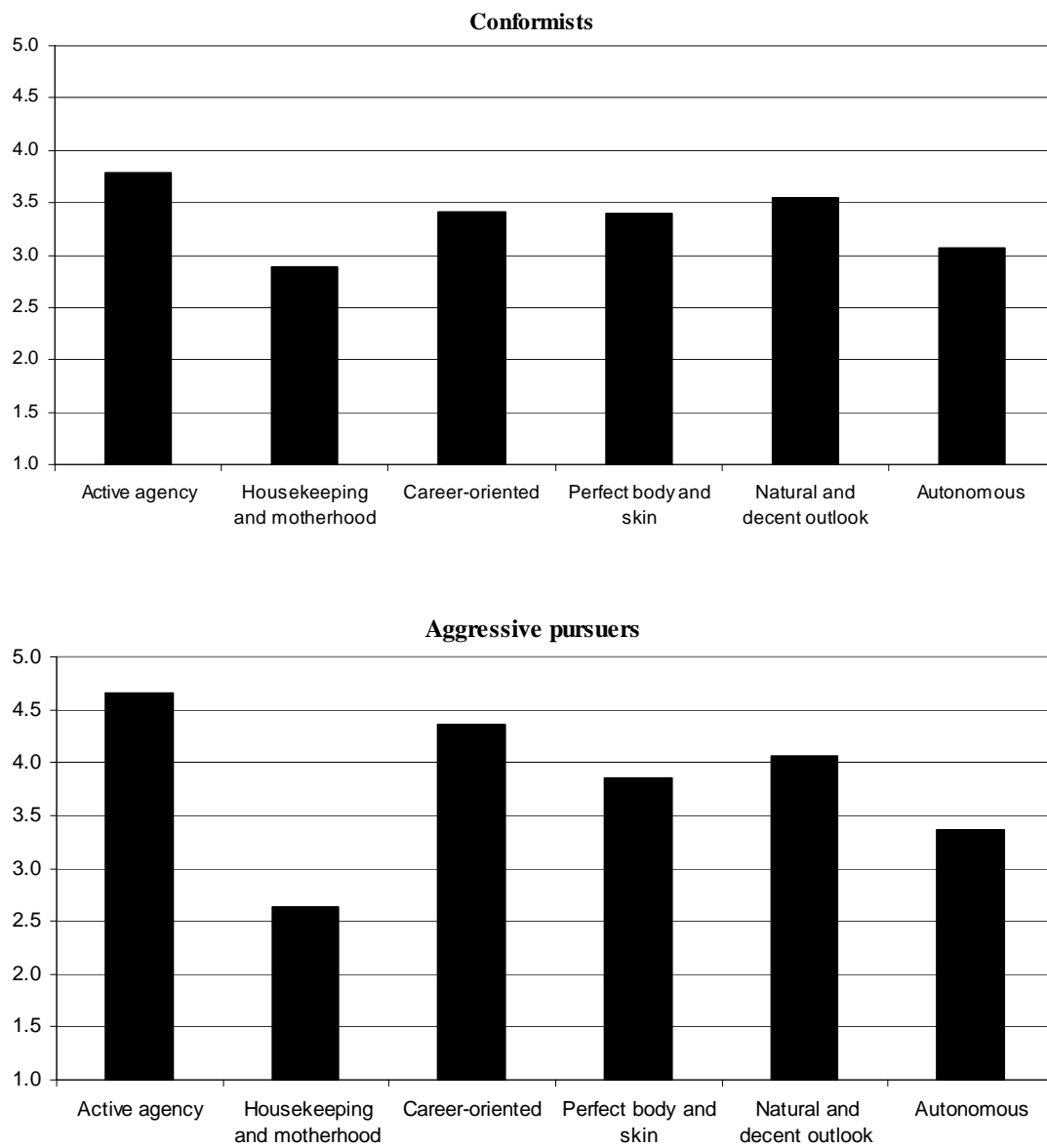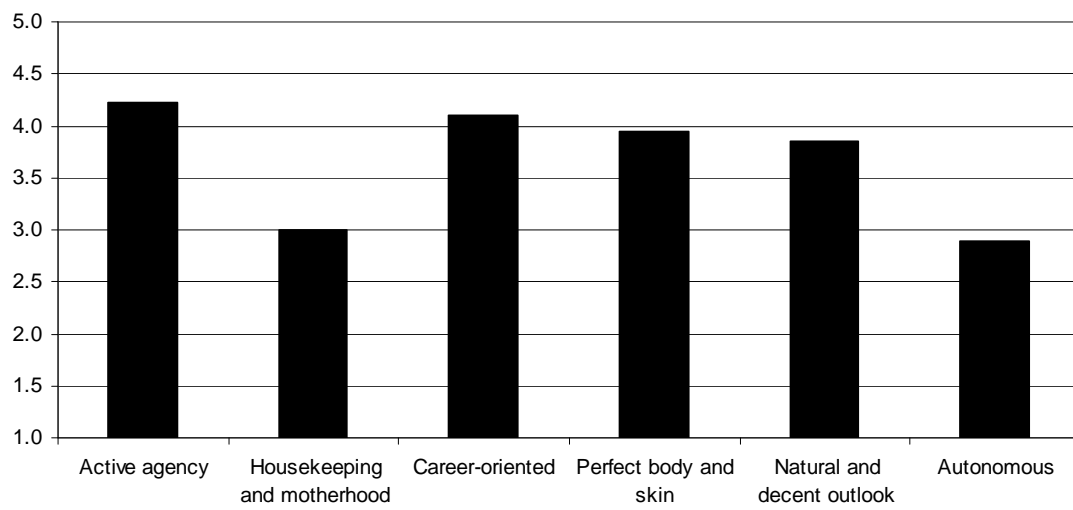Figure 1. Mean scores of the four segments on the gender identity factors

Conformists

Aggressive pursuers

Image protectors

Single-handers