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COSMETOLOGY
CURRENT RESEARCH

Can cosmetics advertisements be indicators of different perception of beauty amongst countries?

Georgia-Alexandra Ch Spyropoulou[1]; Leonidas Pavlidis[1]; Steve Herrmann[2]; Antonis Tsimponis[1]; Anastasios Gomolis[1]; Periclis Foroglou[1]; Efterpi Demiri[1]; Stavros Vassiliou[3]; Eleftherios Vairaktaris[3]*

[1]Clinic of Plastic and Reconstructive Surgery, Aristotle University of Thessaloniki, Greece
[2]Hunfalvy bilingual secondary vocational school, HUNGARY
[3]Department of Oral and Maxillofacial Surgery, University of Athens Medical School, Greece

Corresponding Author: Georgia-Alexandra Spyropoulou,

Assistant Professor, Clinic of Plastic and Reconstructive Surgery, Aristotle University of Thessaloniki, Papageorgiou General Hospital, Periferiaki Odos N. Efkarpia, 56403, Thessaloniki, Greece

Abstract

Background: We reviewed cosmetics advertisements from several parts of the world to study if the concept of beauty varies among different Countries.

Materials and Methods: We used YouTube search engine and key words: "cosmetics", "advertisements" and the name of each Country that was included in our study in the language of the relevant Country. The faces of the models were compared against Marquardt® beauty mask template.

Results: Common characteristics amongst models in different parts of the world were: symmetry, high cheek bones, small noses, thin jaws, lush hair, clean and smooth skin, white toothed smile. Latin America, USA, and Australia preferred tanned models and fuller lips whilst China, Japan, Korea and Thailand preferred milky white skin models and small mouth. Age ratio was lower amongst models in China, Japan, Thailand and Korea cosmetics compared to American, European, Indian, Australian and Arab models. Arab and South East Asia women liked intense eyebrows and used artificial eyelashes. Korean, Chinese and Japanese models had small faces with pointy chins.

Conclusions: All the common characteristics noted by the two independent surgeons (GAS and LP) referred to symmetry, neoteny and health. Differences noticed reflected cultural influences in the perception of beauty.

Introduction

Human race has been in quest of beauty since ancient times. Ancient Greeks used the phrase "kalos kagathos" ([kalos ka:gatʰŏs]) to describe the ultimate virtue that could be attributed to a person. The phrase is composed of two adjectives, καλός ("beautiful") and ἀγαθός ("good" or "virtuous"). This demonstrates the importance that beauty held in ancient Greek society. Even nowadays good-looking people are favored compared to unattractive people not only in relationships but also in everyday life. In mock job interviews, attractive people are more likely to be hired than less attractive individuals [1] and the same pattern holds true in real interviews [2]. Beautiful girls in high school are more than ten times as likely to get married than the least good-looking ones [3]. Therefore, we all agree that beauty is important in order to succeed. However, who is considered beautiful? Is the concept of beauty the same among different races? In this paper we reviewed cosmetics advertisements from different parts of the world and documented the similarities and differences of the models face characteristics to try to address the aforementioned questions.

Materials and methods

We hypothesized that models in cosmetics advertisements would represent a standard of beauty in the area of the world

that they are presented. Our analysis compared characteristics of the face between various Countries and concluded the perceptions of beauty in each culture as this was depictured in cosmetics advertisements. Research was held through YouTube search engine and the keywords used were cosmetics, advertisement and the name of each Country we included in our analysis. We used the keywords in the language of the relevant Country.

We retrieved cosmetics advertisements from United States of America (USA), Latin America (Mexico, Brazil, Argentina), Europe (France, Italy, UK, Germany), Asia (China, Japan, India, Korea), Russia, Australia, Kuwait, Egypt and United Arab Emirates (UAE) as seen in (table 1). In our research we included only advertisements of the current decade, which used female models in order to promote their products. We included only advertisements for facial and hair care.

Table 1: Cosmetics advertisements that were retrieved through YouTube search engine per Country

USA	13
Mexico	2
Brazil	13
Argentina	7
France	21
Italy	50
UK	25
Germany	3
Russia	10
China	31
Japan	3
India	42
Korea	19
Thailand	6
Australia	8
UAE	2
Egypt	1
Kuwait	1

The faces of the models were analyzed by two independent observers (GAS and LP). Traits that were examined were symmetry, face diameter, neoteny, and skin type (Fitzpatrick), hair type and characteristics of the nose, eyes, eyebrows, cheekbones, jaws, lips and teeth (table 2). We used as template Marquardt beauty mask [4-6]. The mask was created using as rule phi ratio also known as the "golden" ratio. Phi ratio was used by many artists as Phidias, Leonardo Da Vinci and Salvator Dali to create masterpieces. The faces of the models were compared against the mask and the characteristics were judged accordingly. Hence, for example, if the jaw corresponded to the inner polygon the jaw was rated as "thin", if it corresponded to the intermediate polygon it was rated as "average" and if it matched the outer polygon as "prominent".

Table 2: Facial Characteristics that were documented per model.

Symmetry	Yes		No			
Skin	Perfect		Imperfect			
	Fitzpatrick	Type I	Type II	Type III	Type IV	Type V	Type VI
Lush hair	Yes		No			
Nose	Small		Average	Large		
Eyes	Small		Average	Big		
Eyebrows	Thin		Average	Intense		
Cheek bones	Flat		Average	Prominent		
Jaw	Thin		Average	Prominent		
Lips	Thin		Average	Full		
Face diameter	Small		Average	Big		
Teeth	Straight		Yes	No		
	White		Yes	No		

Statistical analysis

Statistical analysis was conducted through SPSS (edition 17) software package. Data was thoroughly examined and a chi square test or a Fisher's exact test was used to figure out a correlation between the various characteristics of the face as they were observed by the two examiners. An additional correlation was examined among the same characteristics in the countries used in our study. The level of statistical significance was determined to p values <0.05.

Results

Beauty characteristics that were common amongst models in different parts of the world were: symmetry, high cheek bones, small noses, thin jaws, lush hair, clean and smooth skin, white toothed smile. Afro-Caribbean origin models used in cosmetics were usually mixed-race with small noses and lighter complexions. Differences were: USA, Latin America and Australia preferred tanned models whilst China, Japan, Korea and Thailand prefer milky white skin models. USA, Latin American, European, Australian, Indian and Arab models had fuller lips whilst a small mouth was preferable for China, Japan, Thailand and Korean models. Furthermore, age ratio was lower amongst models in China, Japan, Thailand and Korea cosmetics where baby-faced individuals were preferred compared to American, European, Indian, Australian and Arab models. Arab and South East Asia women had intense eyebrows and used tattoo to enhance them. They also used artificial eyelashes to create a dramatic eye look. Korean, Chinese and Japanese models had small faces with pointy chins. The correlations among the different traits of the face by the two observers and for each Country are documented in tables III and VI.

Table 3: Correlations among the different traits of the face by the two observers.

	Observer 1 (GAS)	Observer 1 (LP)	P value
Face symmetry	Yes: 237 (92.2%)	Yes: 242 (94.2%)	0.381
	No: 20 (7.8%)	No: 15 (5.8%)	
Skin quality	Perfect: 235 (91.4%)	Perfect: 234 (91.1%)	0.876
	Imperfect: 22 (8.6%)	Imperfect: 23 (8.9%)	
skintype	1-2: 63 (24.5%)	1-2: 65 (25.3%)	0.962
	3-4: 149 (58%)	3-4: 149 (58%)	
	5-6: 45 (17.5%)	5-6: 43 (16.7%)	
Lush hair	Yes: 238 (92.6%)	Yes: 237 (92.2%)	1
	No: 19 (7.4%)	No: 20 (7.8%)	
Nose	Small: 248 (96.5%)	Small: 248 (96.5%)	1
	Average: 9 (3.5%)	Average: 9 (3.5%)	
Eyes	Small: 23 (8.9%)	Small: 23 (8.9%)	0.906
	Average: 207 (80.5%)	Average: 210 (81.7%)	
	Big: 27 (10.5%)	Big: 24 (9.3%)	
Eyebrows	Thin: 247 (96.1%)	Thin: 243 (94.6%)	0.403
	Average: 10 (3.9%)	Average: 14 (5.4%)	
Cheekbones	Flat: 19 (7.4%)	Flat: 17 (6.6%)	0.936
	Average: 211 (82.1%)	Average: 212 (82.5%)	
	Prominent: 27 (10.5%)	Prominent: 28 (10.9%)	
Jaw	Thin: 24 (9.3%)	Thin: 23 (8.9%)	0.823
	Average: 212 (82.5%)	Average: 209 (81.3%)	
	Prominent: 21 (8.2%)	Prominent: 25 (9.7%)	
Lips	Thin: 13 (5.1%)	Thin: 13 (5.1%)	0.963
	Average: 213 (82.9%)	Average: 215 (83.7%)	
	Full: 31 (12.1%)	Full: 29 (11.3%)	
Face diameter	Small: 230 (89.5%)	Small: 230 (89.5%)	1
	Average: 27 (10.5%)	Average: 27 (10.5%)	
Straight teeth	Yes: 238 (92.6%)	Yes: 238 (92.6%)	1
	No: 19 (7.4%)	No: 19 (7.4%)	
White teeth	Yes: 238 (92.6%)	Yes: 238 (92.6%)	1
	No: 19 (7.4%)	No: 19 (7.4%)	

Table 4: Different facial traits correlations for each Country

		USA	Mexico	Brasil	Argentina	France	italy	Uk	germany	Russia	China	japan	India	S Korea	Thailand	Australia	UAE	Egypt	Kuwait	P Value
Face symmetry	Yes	23	4	24	14	39	94	45	6	20	55	6	79	36	12	16	4	1	1	0.192
	No	3	0	2	0	3	6	5	0	0	7	0	5	2	0	0	0	1	1	
Skin	Perfect	23	3	24	14	38	90	46	6	19	56	5	76	38	8	15	4	2	2	0.367
	imperfect	3	1	2	0	4	10	4	0	1	6	1	8	0	4	1	0	0	0	

Skintype	I-II	12	0	6	8	12	24	17	6	10	7	5	7	6	0	5	3	0	0	0
	III-I	12	2	11	5	29	69	31	0	10	55	1	17	32	10	11	1	1	1	
		2	2	9	1	1	7	2	0	0	0	0	60	0	2	0	0	1	1	
Lushhair	Yes	23	3	24	14	39	91	50	3	18	59	5	79	34	11	15	4	2	1	0.006
	no	3	1	2	0	3	9	0	3	2	3	1	5	4	1	1	0	0	1	
eyes	Small	2	0	0	2	2	15	2	1	10	4	0	4	2	0	2	0	0	0	0
	average	21	4	23	11	36	73	47	1	10	51	6	71	32	12	11	4	2	2	
	big	3	0	3	1	4	12	1	4	0	7	0	9	4	0	3	0	0	0	
Eye-brows	thin	24	3	25	13	42	96	48	6	20	61	5	80	38	11	15	1	1	1	0
	average	2	1	1	1	0	4	2	0	0	1	1	4	0	1	1	3	1	1	
Cheek-bones	Flat	2	0	1	1	4	7	3	1	1	5	0	5	4	1	0	0	0	1	0.656
	Average	21	3	22	13	33	82	42	5	16	52	5	69	33	8	15	2	1	1	
	Prominent	3	1	3	0	5	11	5	0	3	5	1	10	1	3	1	2	1	0	
Jaw	thin	1	0	2	0	12	16	2	0	2	2	0	6	2	0	1	1	0	0	0
	average	24	2	22	14	26	73	43	6	15	55	3	73	35	11	12	3	2	2	
	Prominent	1	2	2	0	4	11	5	0	3	5	3	5	1	1	3	0	0	0	
Lips	Thin	2	0	2	0	2	5	3	0	0	4	0	4	2	0	2	0	0	0	0.98
	Average	21	4	20	13	34	83	42	6	18	49	6	72	30	9	14	4	1	2	
	Full	3	0	4	1	6	12	5	0	2	9	0	8	6	3	0	0	1	0	
Facedi-ameter	Small	23	4	23	12	38	90	45	5	18	55	6	75	34	12	12	4	2	2	0.972
	Average	3	0	3	2	4	10	5	1	2	7	0	9	4	0	4	0	0	0	
Straight teeth	Yes	25	3	22	14	40	90	48	5	17	58	6	82	30	12	16	4	2	2	0.052
	No	1	1	4	0	2	10	2	1	3	4	0	2	8	0	0	0	0	0	
teeth white	Yes	26	4	22	12	40	92	46	6	17	59	5	81	33	9	16	4	2	2	0.235
	No	0	0	4	2	2	8	4	0	3	3	1	3	5	3	0	0	0	0	

Discussion

It is a fact that beauty carries privileges. Beautiful people are more likely to win arguments, they are more at ease socially, get better grades, have better potential to get hired for a job and they are even more likely to get away with any type of crime [7,8]. However, is the concept of beauty the same in different parts of the world? Or is really "beauty in the eye of the (native) beholder"? There is evidence in the literature that people in different cultures generally agree on which faces are attractive [9-14]. Nevertheless, there are also some differences with greater agreement on facial attractiveness noted within cultures than between cultures [15-17]. We focused our study on the evaluation of faces of beautiful women that participate in cosmetics advertisements in different parts of the world as we hypothesized that they would symbolize a standard of beauty in the area of the world that they are presented. Moreover, the appearance of the face is the main factor contributing to attractiveness [18]. The common characteristics noted by the two independent surgeons (GAS and LP) who reviewed the cosmetics advertisements were: symmetry, high cheek bones, small noses, thin jaws, lush hair, clean and smooth skin, white toothed smile. High cheek bones are the single most sensitive indicator of an estrogen-rich state [19]. Also, a thin jaw, small chin and a small nose are indicative of high oestrogen ratio and suggest therefore, a fertile host [20]. Lush hairs are a sign of neoteny and health [21]. The same goes for clean and smooth skin, with no signs of disease such as acne, atopic eczema, rosacea, or similar disorders and also, for white teeth [22]. What is perceived as healthy is also considered more beautiful [23]. The theory exists that a body consumes energy to create a beautiful exterior, thus, sick animals that need to spend internal resources to fight off disease cannot afford to spare energy to produce a beautiful symmetric or colorful appearance [24]. Therefore, evolutionary, beauty is the mean that helps us choose the healthy mate most likely to ensure our genes pass on to the next generation [25]. All the common characteristics noted by the two independent surgeons (GAS and LP) referred to symmetry, neoteny and health. This is in agreement with the viewpoint that there are 4 components of facial attractiveness: averageness (koinophilia), sexual dimorphism (masculinity or femininity), youthfulness or neoteny, and symmetry [25]. Differences noticed reflected cultural influences in the perception of beauty. In Asia for example white skin was considered beautiful because rich people did not have to work, so they stayed indoors whilst poor people had to work outdoors under the sun and as a result their skin color was darker. These are more conservative countries so the idea still holds. In America, Australia and wealthy European Countries most jobs are indoors nowadays. Therefore, white skin may suggest that you spend all your time working and don't have the

time to go on vacations especially to warm places where you would get a tan. So, tanned skin is considered a sign of wealth. A small mouth is preferable for China, Japan, Thailand and Korean models whilst USA, Latin American, European, Australian, Indian and Arab models have fuller lips. Small delicate "cherry lips" were considered traditionally pretty in Chinese culture whilst fleshy lips were characterized as "two sausages". Nowadays, Manga and Anime characters with their big eyes and small mouths have great influence in Taiwanese and Japanese girls especially, who like to dress like dolls. On the contrary, USA, Latin American, European, Australian, Indian and Arab models fuller lips are considered a sign of fertility and sex appeal. Women that look young and cute, nearly childlike are considered attractive in China, Japan, Thailand and Korea. Also, Korean, Chinese and Japanese models have small faces with pointy chins. Again, this is a cultural influence as many Asians consider a small and smooth face to be more aesthetically appealing. This explains the fact that reduction malarplasty surgery and masseter reduction by Botulinium toxin injections, has become increasingly popular in recent years, especially in many East Asian countries [26,27]. Arab and South East Asia women like intense eyebrows and use tattoo to enhance them. They also use artificial eyelashes to create a dramatic eye look. Arab women cover the rest of their bodies and expose their face. Therefore, an intense eye look is the most powerful characteristic that they possess to influence the opposite sex in mate selection. Also, many Asian women tattoo their eyebrows, they sometimes even shave and tattoo them. This is also in Chinese culture as women with thin eyebrows and white skin were considered upper-class as opposed to their farm counterparts. Finally, a universally common characteristic was that the teeth of the models were straight and white. The smile line displayed the entire length of the teeth with or without slight gingival show or slightly covered the upper portion of the teeth. This again is a sign of neoteny as smiling with the teeth entirely displayed or covered at a maximum of 0-2mm is considered as youthful and aesthetically pleasing [28,29].

We could therefore say that there is a general agreement in the 4 basic characteristics of attractiveness between cultures as already mentioned: averageness (koinophilia), sexual dimorphism (masculinity or femininity), youthfulness or neoteny, and symmetry. However, variations exist, mostly as a result of cultural influences. Of course there are some limitations in this study: first of all we could not retrieve cosmetics advertisements from all parts of the globe. Secondly, cosmetics advertisements usually focus on one special characteristic of the face that corresponds to the commodity they promote. Moreover, companies tend to "sell" beauty and try to create standards of beauty as a source of desire. Finally, the evaluation of the models characteristics was performed by two Surgeons who both belonged to the Caucasian race and their judgment on beauty of models of different origin may possibly be biased. It would be interesting if in the future a multicultural panel evaluated the advertisements and documented their opinions.

Conclusion

All the common characteristics noted by the two independent surgeons (GAS and LP) referred to symmetry, neoteny and health. Differences noticed reflected cultural influences in the perception of beauty.

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