

Shaping Aesthetics and Stimulating Demand:

An Analysis of “Facial Attractiveness Analysis” Videos

Xu Guo

School of Literature and Journalism, Sichuan University, Chengdu, China

Abstract: In an effort to evade strict regulations and garner more attention, the cosmetic medicine industry has embraced major online video platforms as crucial marketing channels. Platforms like Bilibili in China host a plethora of videos centered around celebrity facial aesthetics. This study aims to ascertain whether the creators of these videos are professional marketers by analyzing the content features, uncovering their objectives, and gauging audience attitudes. The research, conducted on the well-known Chinese video platform Bilibili, confirms that "aesthetic analysis" videos serve as a form of online marketing in the cosmetic medicine field. Their primary purpose is to subtly shape the audience's aesthetic standards, stimulate cosmetic desires by emphasizing the gap between ideal and reality, yet the audience generally responds positively to such videos.

Keywords: Cosmetic Medicine, Online Marketing, Bilibili, Aesthetic Shaping

Introduction

As a significant domain within the realm of body consumption, the cosmetic medicine industry has flourished in China since the 1980s, primarily targeting a vast female audience. It involves the restoration and reshaping of facial features and various body parts through pharmaceuticals, surgery, medical devices, and other invasive or irreversible medical techniques (Sontag, 1989, p. 85).

With the rapid growth of the cosmetic medicine industry, the “beauty economy” has become a consumer hotspot. Driven by economic interests, many businesses, through misleading advertising, encourage consumers to overlook the risks inherent in the cosmetic medicine industry and make impulsive decisions. To regulate the industry development, China has implemented comprehensive regulatory policies, with the release of the “Enforcement Guidelines for Cosmetic Medicine Advertising” by the State Administration for Market Regulation in 2021, marking an escalation in regulatory efforts.

Today, online media has become an integral part of people’s daily lives. In response to both regulatory concerns and technological advancements, marketing strategies in the cosmetic medicine industry have shifted from traditional media to online platforms (Zheng & Zhu, 2023). Simultaneously, numerous studies have highlighted the intensification of people’s focus on appearance due to the flourishing of social media, leading to appearance-related anxiety (Huang et al., 2020). However, empirical research on the content of online marketing exacerbating dissatisfaction with one's appearance is scarce.

Therefore, this study focuses on “aesthetic analysis” as a keyword and utilizes videos collected from the popular Chinese video platform “Bilibili” as research material. Through statistical analysis of the titles, content, authors, views, and time-sync

comments¹ of these videos, the research aims to explore the characteristics and purposes of such marketing content and the emotions it evokes in the audience.

I. Data Sources and Research Methods

(1) Overview of Data Sources

Bilibili, as a well-known domestic video playback platform and community, has developed over more than a decade, creating an ecosystem revolving around users, creators, and content that consistently generates high-quality materials. In comparison to other platforms, the group of content creators on Bilibili is highly diverse, encompassing professional institutional accounts, individual accounts, varying levels of professional expertise, and a wide range of creative themes. Among user communities, Bilibili stands as one of the first video websites in China, boasting a substantial core user base due to its extended history, making it one of the most vibrant video platforms in terms of user engagement. In terms of content, Bilibili has embraced a diverse multicultural community, covering over 7,000 interest circles.

(2) Data Sources

We conducted a search on the Bilibili homepage for content related to “aesthetic analysis” and found a total of 968 videos. To meet the research requirements, we collected data including titles, authors, and view counts for all identified videos. To gauge audience attitudes, the videos were then sorted based on view counts, and the top ten videos were selected for extracting time-sync comments. In total, 991,090 comments were analyzed.

(3) Research Methods

¹ Time-Sync Comments (TSC; also called *Danmu* in Chinese and *Komennto* in Japanese) is a new textual information in video content that has been applied to many online video websites such as Acfun and Bilibili in China, Niconico in Japan and so forth. User comments are overlaid directly onto the video, synced to a specific playback time.

Text analysis refers to the representation of text and the selection of its characteristic features. It is a fundamental issue in text mining and information retrieval. The semantics of text can reflect specific stances, viewpoints, values, and interests, allowing inferences about the intentions and purposes of the text providers. The main focus of this paper is on videos related to “aesthetic analysis” and the research employs text analysis methods.

The paper utilizes text analysis techniques by employing ROSTCM6 software to conduct statistical analysis of titles and barrage data from videos related to “aesthetic analysis”. ROSTCM6 software facilitates various text analysis functions, including chat analysis, browsing analysis, segmentation, word frequency statistics, traffic analysis, and cluster analysis. Using ROSTCM6 for analysis provides a more intuitive and effective reflection of the features of such videos and the information expressed in time-sync comments, capturing a comprehensive understanding of the public’s psychological perception.

II. Evidence that “Aesthetic Analysis” Video Creators Are Mostly Professional Marketing Accounts

1. Criteria for Judgment

In the current landscape of online media platforms disseminating content related to cosmetic medicine, marketing intentions are increasingly concealed to evade stringent advertising regulations. To determine whether accounts publishing “aesthetic analysis” videos are professional marketing accounts, this paper, based on practical considerations and comprehensive data collection, concludes two judgment criteria:

i. Judgment based on the frequency of video uploads by the account. Generally, professional marketing accounts adhere to a strict schedule, regularly releasing videos daily, weekly, or monthly to maintain account activity and content promotion,

attracting more user attention. Thus, if a video creator excessively uploads numerous videos without considering audience feedback, it suggests the account may be a professional marketing one.

ii. Judgment based on the theme of the account's works. Professional marketing accounts tend to concentrate their efforts by limiting the content scope, ensuring a more targeted message. Focusing resources on specific topics or products also reduces costs, as there is no need to cover a wide range of subjects or create content unrelated to marketing goals. Therefore, professional marketing accounts may emphasize intensive promotion around specific topics or product services, neglecting other themes.

2. Analysis Results

(1) Analysis Result 1: Short and Regular Intervals between Main Works

To facilitate the analysis of accounts publishing “aesthetic analysis” videos, we initially compiled data on a total of 968 related videos. The top ten authors with the highest number of related video releases were then selected for further analysis. We concealed the names of the top ten content creators and sorted them in descending order based on the number of related works, assigning ranks from 01 for the highest to 10 for the lowest. (Figure 1) The top-ranking author had released 135 related videos, while the tenth-ranking author had released 20.

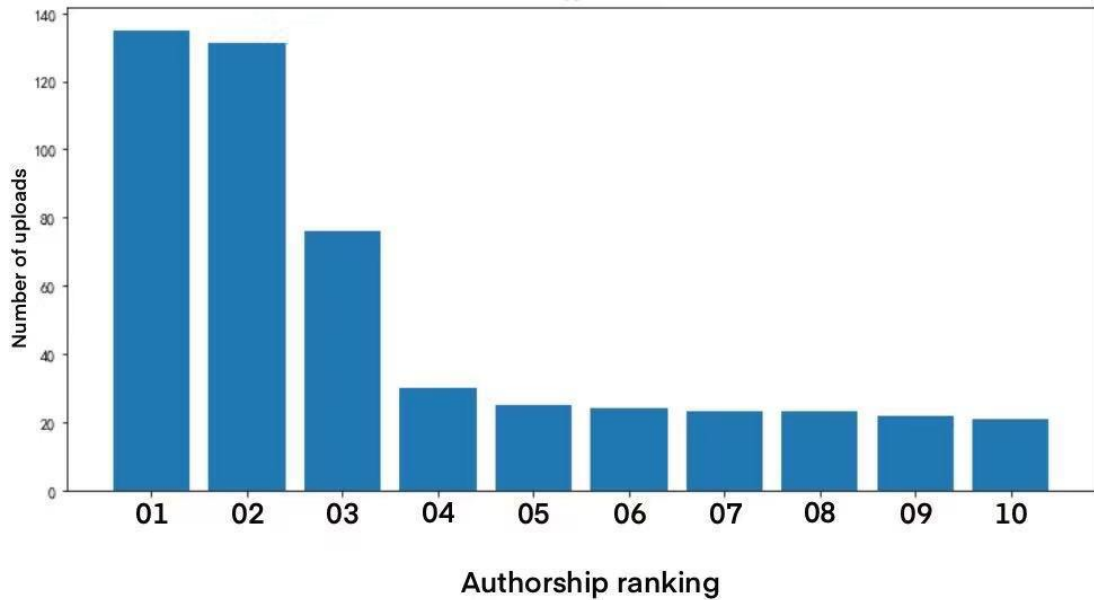


Figure 1. Release Count Statistics of Different Content Creators

Subsequently, data on the submission dates of these ten authors' works were collected and analyzed. It was found that, on average, they could upload two pieces of content per day. Three authors had a relatively lower submission frequency, but even so, the intervals were just one day. Five authors had submission frequencies of three or more times per day, with the highest-ranking author averaging seven uploads per day. Such upload speeds are challenging for non-professional team accounts to achieve.

(2) Analysis Result 2: Uniform Content Themes Centered Around Facial Aesthetics and Cosmetic Surgery

To further validate the marketing nature of these accounts, this study examined the keywords in the titles of all works published on Bilibili by the aforementioned ten video creators. Using ROSTCM6, we processed the keywords in the titles, compiling a list of the top ten high-frequency words for each author. The results indicated that the themes of these authors' works were remarkably uniform, revolving around keywords such as appearance, celebrities, and aesthetics.

Authorship ranking	Time_interval
01	-1days
02	-1days
03	-2days
04	-3days
05	-5days
06	-3days
07	-7days
08	-4days
09	-1days
10	-2days

Table 1 - Upload Interval Ranking Table

Taking the works of “Yi Ben Zheng Jing” (literally translated as ‘Auntie’s Beauty Chronicles’) as an example, the analysis of high-frequency words in the titles revealed that the term “aesthetic analysis” had the highest frequency. It is evident that the primary theme of this author’s works is the analysis and commentary on people’s appearances. The second and third most frequent words were “appearance” and “become beautiful”, closely related to physical appearance. This aligns with the characteristic of marketing accounts having a singular content theme. The appearance of high-frequency words such as “line of thought” and “aesthetics” is related to the promotion of aesthetic principles that evaluate human appearance based on the popularity of precise proportions. The emergence of the term “cosmetic intelligence²”, a newly coined word specifically for discussions related to cosmetic surgery or beauty, further exposes their marketing intention

Up_name	word	frequency
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² In the online context, “cosmetic intelligence” is an emerging term primarily used for discussing topics related to cosmetic or beauty procedures. “cosmetic intelligence” refers to one’s perspective on cosmetic enhancements and the awareness of the degree to which one feels the need for such modifications. For instance, if an individual undergoes excessive cosmetic procedures, leading to facial features that are incongruent with their inherent temperament, it can be said that their “cosmetic intelligence” is relatively low.

Yi Ben Zheng Jing	Facial Analysis	188
	Appearance	98
	Beautification	88
	Perspective	76
	Attractive	62
	Facial	56
	Style	54
	Aesthetics	54
	Facial Features	30
	Cosmetic Intelligence	24

Table 2 Frequency Words in the Titles of Works by the Author “Yi Ben Zheng Jing”

In conclusion, through statistical analysis of the submission intervals and thematic data of these representative video authors, it was observed that their submission intervals were short and regular, and the themes of their works were singular, primarily revolving around celebrity facial analysis and cosmetic surgery topics. Therefore, it can be concluded that the creators of “aesthetic analysis” videos are mostly professional accounts engaged in marketing cosmetic medical content.

III. Content Characteristics of “Aesthetic Analysis” Videos

After observing and analyzing the titles and content texts of the collected works, it was found that currently, most “facial analysis” videos on major platforms share two characteristics: analyzing celebrities and internet celebrities as subjects and utilizing professional facial aesthetic terminology to describe facial features, emphasizing “scientific” standards that bring aesthetic beauty.

1. Analysis Focus on Celebrities and Internet Celebrities for Their Beautiful Faces and Fans

After statistical analysis, it was found that among the 968 videos collected with “aesthetic analysis” as the main theme, 92% of the works used celebrities or internet celebrities as the analysis subjects. This is generally for two reasons:

Firstly, individuals who become celebrities or Internet celebrities often have superior look, at least presenting a more charming appearance on camera than in real life. Research indicates that the appearance of internet celebrities with a large number of fans mostly conforms to facial aesthetic standards that bring beauty (Eggerstedt et al., 2020). Thus, when analyzing the faces of these subjects, video creators can advocate “standard beauty” to the audience in a more scientifically rigorous manner, increasing weity they bring to the audience.

Secondly, celebrities themselves have a massive fan base or significant influence during a certain period. In this study, most celebrities analyzed by professional marketing accounts were highly prominent during the period of video uploading or were well-known at that time. This allows the works to leverage the attention these celebrities naturally bring, gaining exposure and clicks.

2. Emphasis on Facial Aesthetic Standards, Aimed at Shaping Audience Aesthetics

Previous research indicates that the appearance of slim and beautiful women in media advertisements increases women’s anxiety about their own appearance (Groesz et al., 2002). The gap between individuals’ self-image and the attractive images presented in media advertisements promotes the use of methods such as weight loss and plastic surgery.

The emphasis on “facial aesthetics” in works of the “facial analysis” category is primarily aimed at shaping audience aesthetic perceptions in a more concealed manner. For example, an account on the popular video platform TikTok with over 800,000 followers, named “Yi Ben Zheng Jing,” focuses on content related to “facial analysis” and “beauty secrets.” While not directly promoting various cosmetic surgery procedures, the account influences the audience’s aesthetic standards more subtly by analyzing the facial proportions of celebrities, such as what kind of nose-forehead angle looks younger and more beautiful, stimulating dissatisfaction with their own appearance in the audience and thereby generating a demand for cosmetic medicine.

“Yi Ben Zheng Jing” uploaded a video titled “Who is the Top Baby-Face in Your Hearts,” discussing faces that resemble babies, giving a sense of innocence and purity. In this video, we mentioned the member Jennie of the well-known South Korean girl group BlackPink³ and provided the following description and analysis: “Jennie’s face has a short ratio between the midface and lower face, with a length-to-width ratio close to 1:1,” “Her cranial height is outstanding,” “The philtrum is short and deep, the eyes are wide apart, the nose tip is round and full, and the nasal bridge is modest, the face shape is also full and fleshy, every feature of baby-face is close to full marks.”

Another author went a step further, analyzing facial features of celebrities to determine whether they had undergone plastic surgery and taking the opportunity to express recommendations regarding cosmetic surgery to the audience. For example, in a video titled “What Similar Misconceptions Exist in the Facial Changes of Li Xiaolu and Chen Qiao En⁴,” the main content of the text is as follows: “First (Chen Qiao En) and Li Xiaolu have square faces in the early stage, with large jaw angles. They both had a lot of subtraction done to their lower jaws, making their profiles much smoother,” “Li Xiaolu's internet celebrity feeling is important because of her double

³ Black Pink is a prominent South Korean girl group formed by YG Entertainment. The group consists of four members: Jisoo, Jennie, Rosé, and Lisa. Debuting in 2016, Black Pink quickly gained international recognition for their powerful performances, catchy music, and stylish visuals. They have become one of the leading figures in the global K-pop phenomenon, known for hits like 'Whistle,' 'DDU-DU DDU-DU,' and 'How You Like That.' The members are also recognized as fashion icons, contributing to their widespread popularity beyond the music industry.

⁴ Li Xiaolu and Chen Qiao En are Chinese female celebrities known for their contributions to the entertainment industry

eyelids. At that time, the aesthetic was European-style large double eyelids, with wide and deep eyelids. Later, the sinking of the eye sockets added to the false sense of double eyelids,” “If you want others not to see that you've had cosmetic surgery, you must be willing to stop when things are going well. Changes that suit your own facial baseline can achieve a natural and recognizable good appearance. Do you remember?”

IV. Audience Attitude Analysis Using Semantic Network Analysis and Sentiment Analysis

To comprehensively understand the audience’s attitudes towards these videos, we selected the top ten videos based on the number of views, extracted the time-sync comments from these videos, totaling 991,090 time-sync comments. ROSTCM6 software was then used to analyze the semantic network and sentiment tendencies of these time-sync comments.

1. Results (1): Semantic Network Construction Corresponds to Video Content Orientation, Obtaining Positive Audience Interpretation

Stuart Hall proposed the “encoding-decoding” theory in the essay “Encoding and Decoding in the Television Discourse.” Encoding refers to the information disseminator transforming the conveyed message, intention, or viewpoint into codes with specific rules. Decoding refers to the information receiver interpreting these codes according to specific rules. The theory suggests that dominant meanings are not conveyed through direct denotation but through implicit, naturalized encoding. Implicitly coded signs that dominate ideological consciousness are not transparent and are not easily accepted by the audience. The audience needs to use decoding to obtain meaning.

To explore whether the audience of these videos has received the intentions of the video creators, we imported the time-sync comment text into the ROSTCM6 software. The semantic network diagram of the time-sync comments (Figure 2) was obtained using the network semantics analysis function. The semantic network analysis involves selecting and statistically counting high-frequency words. Based on the co-occurrence relationship between high-frequency words, the relationships between words are quantified and then graphically displayed to reveal the structural relationships between words. This type of semantic network structure diagram can intuitively analyze the hierarchical relationships and closeness of high-frequency words. Generally, a direct line connecting two nodes indicates relevance, and the more lines, the closer the connection. Semantic networks can most intuitively reflect the correlation between word groups. Compared to frequency analysis, semantic network analysis can reflect deeper structural relationships between word groups.

From the obtained results, the semantic network diagram of the time-sync comment text can be divided into three levels: “core, inner, and outer.” The word “standard” is at the core, connecting inner words such as “proportion,” “symmetrical,” “facial features,” and “absolute.” The outer layer of the network revolves around the names of celebrities widely followed in China, specific facial features such as “nose,” “chin,” “neck,” and adjectives describing appearance like “perfect,” “beautiful,” “good-looking,” “cute,” and “ordinary,” expressing the public’s evaluations of various celebrities’ appearances mentioned in the video. By analyzing the composition of the three-level keywords in the semantic network, it can be concluded that the audience fully received the core theme that the video aimed to express, which is the attention and discussion of appearance, aesthetic standards, and facial measurement aesthetics.

emotions than negative emotions. This indicates that the public has a good acceptance of the viewpoints expressed in the video content, and there is a high acceptance of the video creators' evaluations of celebrity appearances.

Emotional Tendency	Time-sync Comments Count	Percentage of Total
Positive Emotion($5,+\infty$)	216236	21.82%
Neutral Emotion $[-5,5]$	692989	69.92%
Negative Emotion($-\infty,-5$):	81865	8.26%

Table 3 Statistical Results of Emotional Distribution

Conclusion

Through statistical analysis of “beauty analysis” videos obtained on the Bilibili platform, this study confirms that the majority of accounts creating such content are professional marketing accounts. The content is oriented towards standardizing aesthetic shaping and stimulating the demand for medical beauty procedures. Currently, popular medical beauty marketing content tends to use celebrities and internet celebrities to create beauty identity, attracting public attention. According to the analysis of audience time-sync comments, viewers tend to agree with the aesthetic viewpoints conveyed in the video, and their emotional tendencies while watching are generally positive, indicating that these videos have achieved good dissemination effects.

It is important to note that such marketing content attempts to create a stereotypical impression based on standardized aesthetics. It uses attractive celebrities and Internet celebrities as templates, creating an idealized standard face to tempt the audience into approaching this idealized body to the maximum extent, with medical beauty procedures being one of the methods. Previous research has confirmed that some viewers who enjoy watching beauty videos, after attempting to enhance their facial features through makeup, quickly realize that mainstream makeup methods are only

suitable for faces that already conform to idealized standards (Zhu & Lin, 2023). Those excluded from the idealized image can only transform themselves through cosmetic procedures, aiming to get closer to that “standard.”

An undeniable reality is that people’s aesthetics change over time. Research by TorselloF and others has demonstrated that while many aesthetic standards from the neoclassical period are still valid, some have changed over centuries. Specifically, the perceived decrease in distance between the mid-third of the face, nose size, and the eyes, considered to bring about beauty, and the relative increase in the width of eyes and mouth (Torsello et al., 2010). This indicates that facial aesthetic “standards” are actually dynamic. Even if people change their appearance through cosmetic procedures and achieve the so-called “standard beauty,” it is likely to become “non-standard” beauty after several years. However, the changes or trauma caused by cosmetic surgery are difficult to repair and reverse, with the risk of disability resulting from failures.

Therefore, in the face of the impact of “beauty analysis” and other medical beauty marketing content, audiences need to make decisions based on their actual situations rather than allowing various online marketing content to create unnecessary or harmful “demands” for their bodies. In conclusion, this study hopes that, after revealing the pitfalls of “beauty marketing” on current online video platforms, people can make more rational and cautious decisions when deciding whether to adopt medical beauty procedures.

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