### Research on Cartoon IP Character Design based on Narrative Logic and Symbol Reconstruction

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#### **Abstract**

Based on the analysis of the functions of narrative logic and symbol reconstruction in cartoon IP character design activities, this paper formulates the design principles of uniqueness, symbolism and unity to guide the creative practice. It is established that at the early stage of design, there should be a Long-term planning and positioning of the design framework from two paths, namely, a main line and a branch line. And at the later design stage, the cartoon IP characters should be designed as a whole from three aspects, i.e., head-body proportion, outline of the silhouette, and color collocation. This paper aims at providing the IP character design with a general methodology of reference values.

#### **Keywords**

Narrative Logic; Symbol Reconstruction; Cartoon IP Characters; Design.

#### 1. Introduction

As a specific creation strategy of cultural IP (Intellectual Property), cartoon IP image design is a creative expression method that anthropomorphizes, cartoon stylizes and visually symbolizes such brand information as intellectual property rights, humanistic values, and spiritual and cultural characteristics. Successful cartoon IP, with its vivid role image, provides the brand culture with a cordial, pleasant, and positive communication environment. It's not only that a successful cartoon IP image functions as a virtual idol to promote the connotation of brand culture, but the follow-up derivative products also present a sustainable dynamic commercial potential or other values. Cartoon IP has become one of the important ways for current enterprises, museums, various social activities to spread the cultural core and to enhance the overall value of the brand.

However, the various forms of cartoon IP image also give rise to a series of problems such as serious homogenization and ambiguous goals of design value. Merely focusing on the uniqueness of the form of the role, some cartoon images lack the combing of the relationship between the brand, the cartoon IP role and the audience. Thus the final character turns out to be an empty shell that can neither withstand rational scrutiny nor fit the core of brand culture. At the same time, the current relevant theories mostly carry out high-level analysis and guidance from macro aspects such as the function, significance, problem, and future development trend of IP design. They try hard to answer questions such as "why design" and "what theories should the design follow", but pay little attention to "how to practical operation, ignoring that the final landing of the image is the core premise of achieving the established value goals. They interpret the particularity of various successful cases, but fail to summarize the general design method behind the success.

Based on this, this paper proposes to use narrative logic to build the framework of cartoon IP character design, and take the method of symbol reconstruction to practice the creation of the role model. It aims to start from the brand itself and build a Long-term native structure of the brand culture. Through a cartoon IP image which is harmoniously compatible with it, the brand culture structure can tell the unique story of each brand and convey its own unique brand

culture. And then the interaction between the brand and the audience can be improved, and the design goal of the cartoon IP character will be achieved.

# 2. The Function of Narrative Logic and Symbol Reconstruction in Cartoon IP Character Design Activities

# 2.1. Narrative Logic Constitutes the Metaphorical Connotation of Cartoon IP Characters

The fundamental purpose of a brand to create a cartoon IP image is to accurately convey the established brand information to the audience with the help of personified cartoon-style visual images, so that the audience will know, accept, keep loyal and depend on the brand and finally a stable and harmonious relationship of mutual benefits will be established. This process, during which a brand tells its story to the audience, is actually a concrete manifestation of the connection between people and people, people and objects. Based on a clear linear narrative logical sequence, the design orientation drives the development of this visual narrative activity: In the first place, ascertain the core audience to whom the character is intended, i.e. to whom (the object of narration) the character is primarily narrated. This is determined by the principle of serviceability of design activities. It is also a prerequisite for achieving two-way communication between brands and audiences.

In order to obtain positive feedback from the audience after their receiving the information, the brand party as the design subject should take the initiative to clarify the general psychological needs of the audience through systematic and explicit preliminary research, so that the subsequent design activities can ensure the efficient point-to-point transmission of the established narrative content.

Second, choose the original image of the character, that is, who (the narrative carrier) will narrate. The paradox in the choice lies in that it is to select someone, an animal or plant, or a substance to as tell a good brand story as a prototype blueprint before the transformation of visual language. The main principle of selection is that the original image has two-way compatibility, i.e., the image is compatible with the established cultural connotation and brand concept that are given by the brand to the role, and at the same time, it can meet or even exceed the positive psychological expectations of the receiving object. The addition and creation of design elements must be based on the original image, just like adopting flowery language to enrich the protagonist's personality and strengthen his/her identity in a narrative text.

Thirdly, incorporate the brand message that the character needs to load, i.e., what to tell the audience (narrative plot). It contains all kinds of subjective information with which the brand side hopes to endow the character, such as brand values, service positioning, spiritual and cultural attributes, etc., which is the "central theme" of the entire narrative process. And then design means will be applied to translate various text information into corresponding visual symbols so as to form a unified and complete cartoon IP character image. Existing in the form of text, brand concept and cultural values can be propagated by various media. However, hindered by the traditional mode, straightforward expression of emotions, and the limitations of time and space of propagation, emotional expression is straightforward, or subject to the limitations of communication time and space, and the text and slogan-style publicity mode fail to make the audience form a deep visual memory, nor can it realize reciprocal emotional communication. On the contrary, cartoon IP roles, the vivid and substantial image ambassador, can express the brand culture to the audience in a flexible, metaphorical visual language, which is also the advantage and necessity of establishing the design direction of IP characters on the basis of narrative logic.

### 2.2. Symbol Reconstruction Constitutes the External Form of Cartoon IP Characters

As an abstract symbol of the visualization of brand information, the basic form of cartoon IP image is visual graphics. The aesthetic function and cultural communication function are the leading functions, while the remaining potential functions can be regarded as an extension of the leading function. For example, the commercial function and practical function of various derivative products of the Olympic mascot, such as stamps, toys, daily necessities, all depend on the specific graphic symbol of the Olympic mascot. Without the particular image of Olympic mascot, those products will lose their cultural values and brand competitiveness, becoming a homogeneous product that lacks unique brand culture. Therefore, the key to break through the changes in the graphic form and avoid the homogenization of IP roles lies in how to highlight the uniqueness of the character's graphic form.

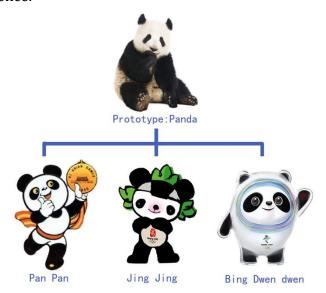
First of all, it requires a unique narrative language that stems from the conceptual positioning and cultural connotation of the brand, which is the basis for establishing the "personality" and "soul" of the IP character. This determines that the character is a "person" with rich experience who is unified with the brand values, so that it can resonate emotionally with the audience. Secondly, as a figure is a collection of symbols of various elements, directly inheriting, copying or roughly processing the existing native elements can only cause the repetition of artistic language, barely reflecting the artistic creativity after independent thinking. With the precondition for Cartoon IP character design that the design conforms to the brand's positioning and core cultural concept, the design elements, such as the unprocessed natural substances like animals, plants, colors are selected for a reasonable form of deconstruction and reconstruction. After the designer's subjective processing, extraction, and arrangement, the design elements have been formally different and stripped from the original reality elements. The symbolism and metaphorical meaning of "defamiliarization", in turn, activate the audience's active thinking and association, and further strengthen their cognition and memory. It's justified to say that injecting brand concept and cultural connotation into cartoon IP characters through narrative logic is the internal driving force for realizing the characters' unique value, while the reconstruction of element symbols is a specific creative method that shows the characters' external uniqueness. The "metaphor" of the former and the "appearance" of the latter together constitute the main method of cartoon IP character design.

# 3. Design Principles of Cartoon IP Character based on Narrative Logic and Symbol Reconstruction

#### 3.1. Uniqueness

The principle of uniqueness of cartoon IP character design is determined by the uniqueness principle of brand positioning, the purpose of which is to differentiate it from competing brands and present its own characteristics and personality, so as to ensure a lasting and stable relationship with the audience. For example, Panpan, the mascot of the 1990 Beijing Summer Asian Games, Jingjing, one of the mascots of the 2008 Beijing Summer Olympics, and Bing Dwen Dwen, the mascot of the 2022 Beijing Winter Olympics, share the same prototype of panda. However, they undergo completely different reconstructions and reproductions of the symbol prototype (Figure 1): Panpan is strong. Jingjing, with the traditional ink painting style, is gentle. Bing Dwen Dwen is cute, mellow and full. Each of them has a unique temperament. Furthermore, as IP characters for Summer Games, Panpan and Jingjing present a simple style with few ornaments, which highlights the theme of "Summer", whereas Bing Dwen Dwen wears an "ice shell", highlighting the feature of "Winter". The difference in narrative purpose directly affects the distinction in the final form of expression. Without the deconstruction and reconstruction

of the elements, the same prototype of panda cannot make a clear and effective interpretation of the social activities of three different periods, nor can it present the corresponding specific information to the audience.



**Figure 1.** Three IP character images corresponding to the prototype of panda

#### 3.2. Symbolism

As a "spokesperson" of a brand, Cartoon IP character is a collection of visual symbols that embody much information including brand concept, cultural connotation, etc. It, from the ontology image to the constituent elements of the role appearance, must meet the brand's real requirements. Therefore, it is advisable to find out representative characteristics from the brand information and translate them into graphics. It can be the spiritual belief of the brand, such as Tencent's Penguin QQ, which symbolizes that the Tencent team can survive and grow with great endurance in extreme environments, just like penguins; It can also be a derivative and metaphor of the typeface of the brand name, as is illustrated by Taobao Tmall, the image and name of which are both derived from the reconstruction of the English name "T-Mall" of Tianmao Mall (Figure 2). Or it can be the core ideology and values of the brand. A good case in point is the metal dog of Jingdong Mall. The dog symbolizes loyalty, uprightness and high speed. Scholar Cohen pointed out that as a link and bridge connecting novels, texts and visual symbols, only the existence of text narratives can give birth to feasible visual narratives. This is manifested by the transformation between the visual symbol narrative presented by the cartoon IP character and the text narrative of brand culture and values corresponds. No matter what idiosyncrasy the character symbolizes, its attributes must be able to serve the Long-term strategy of the brand.

Figure 2. A brief analysis of the design thoughts of T-mall

#### 3.3. Uniformity

The principle of uniformity includes both macro and micro levels. At the macro level, the design positioning of the cartoon IP image needs to unify the core needs of the brand and the psychological acceptance of the audience. It is undoubtedly easier to reach an agreement on the establishment of the design scheme within the brand side. What's difficult is to grasp the audience's subjective perception and psychological judgment after they understand the character image. It is absolutely necessary to avoid defining the design direction from one or more judgment criteria such as commercial value and formal aesthetics. For example, some animals, colors, and clothing styles only fit the cultural ideas of one group, but may violate the values, religious beliefs, political systems or other taboos of another group. Therefore, only by considering the design ideas from the macro level such as business, history, culture, ecology, life, religion, ethics, military affairs, and mainstream values of the current society, can it eliminate or reduce the ambiguity in the translation process of design, so as to facilitate the brand's management, maintenance and promotion in the later stage. At the micro level, the internal design elements of the cartoon IP character, including specific design issues such as character prototypes, decorative elements, and color collocation, should be unified. And the final effect is to unify uniqueness and symbolism into harmony.

#### 4. Design Ideas Around Narrative Logic and Symbolic Refactoring

# **4.1.** Long-term Construction of Narrative Framework -- From Main Line to Branch Line

In a traditional drama narrative text, there is a main narrative line running through the beginning and the end, and the branch narrative that coexists with the main line plays a profound role in enriching and promoting the narrative. Likewise, the propagation of cartoon IP roles also needs to be expanded and updated to adapt to the development of the times. Under the main-line narrative based on the core goal of disseminating the established information of the brand to the audience, it is advisable to make full use of the cartoon IP character to create various branch-line narratives. With the branch lines, the "personality" of IP characters is enriched, the character's existence is transformed from monotony to diversity, and the audience's senses are repeatedly stimulated, the audience being willing to deepen their understanding of the brand. Some brands have successfully converted their IP characters from an appendage of brand culture to an independent brand, releasing the IP character's diversified value potential and ensuring their lasting vitality. For instance, currently virtual social software and short video platforms have gradually replaced traditional film and television media as new bases for various types of brand promotion. Some enterprises or independent brands such as Tmall, Wu Huang White Tea, and Egglab apply a diversity of social software to open independent accounts for IP characters and run the accounts with an anthropomorphic identity. These anthropomorphic authors adopt the forms of picture books and illustrations to record and share daily affairs and anecdotes of IP characters on the platform, helping to accumulate network flow of traffic in the branch narrative channel and expand the new path of brand marketing. A good case in point is the cartoon IP character Tang Niu who has two identities. On the one hand, she serves as the "spokesperson" of Shaanxi History Museum, undertaking the "main line task" of exporting the cultural and spiritual connotations of the museum. On the other hand, she is the image ambassador of Xi'an Qiao He Animation Culture and Technology Co., Ltd., to which her creator Mr. Er Qiao belongs. A tour to Tang Dynasty with Tang Niu, Tang Niu Arrives, and other picture books written by Mr. Er Qiao adopt comic forms to unfold multiple independent narratives, leading readers to appreciate from the perspective of Tang Niu the culture of Tang Dynasty which existed thousands of years ago. This promotes the

creative transformation and innovative development of traditional culture, and achieves a winwin situation for the two brands.

The cases mentioned above shed light on the importance of parallel narration of main line and branch line in the realization of diversified values of cartoon IP characters. However, the construction of narrative framework cannot be done without a Long-term, macro design positioning and rigorous, clear narrative logic planning in the early stage.



Figure 3. Standing female figures Pastel and Tang Niu

Mr. Erqiao claimed that despite the cheerful success of Tangniu, the mistake in the selection of character prototype in the early stage of design makes difficult for many branch-line narrations to be inconsistent. The costume and makeup of Pastel Female Standing Figurine, the prototype of Tang Niu, Standing Female Figures in Pastel, is in the style of married woman in the Tang Dynasty, which contradicts the lively-and-playful-little-girl image of Tang Niu in the comics. The designer once intended to change the protagonist, but as Tang Niu has already enjoyed popular support, the design had to give up. This highlights that a clear deployment of Long-term strategies is the fundamental premise that triggers the multiple values of cartoon IP characters. Through the enlightenment brought by the above case analysis, the mind map of narrative framework of cartoon IP character design can be established in this way (Figure 4):

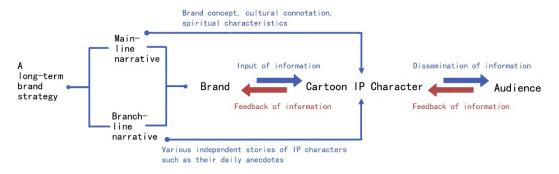


Figure 4. Mind map of narrative framework of cartoon IP character design

#### 4.2. Translation from Design Elements to Cartoon IP Characters

No matter how carefully the narrative information that the IP character needs to load is formulated by the design positioning, the text message eventually has to be translated into the corresponding visual symbols. Brands differ in their requirements in the loaded information, resulting in the uniqueness of the specific form of the role. However, but the translation practice from the brand information and the original elements into cartoon characters is generally carried out around three aspects:

First, the symbol translation between the age positioning of the audience and the head-body proportion of cartoon character's. The difference in the head-body proportion of the cartoon characters will directly affect the transmission of the information, so it is necessary to evaluate

the age and cognitive level of the target group before the choice of proportion. When the head-body proportion is within the range of 1:5, namely, a general height ratio range of common cute cartoon characters, the cartoon character usually present characteristics of young children, target audience being children and teenagers. Tang Niu and Peppa Pig are good cases in point. If the brand's target audience is not restricted to a particular age level, the 1:5 ration range still enjoys most popularity, because it can be easily accepted by audience of all ages ranging from young children to elderly people. The Olympic mascots are a good example. Generally speaking, an adult's head-body proportion is 1:7. Therefore, when the ratio is greater than 1:5, the character tends to present temperament of adults, and the role's positioning of the target audience is mostly adults. For instance, the IP characters of Michelin tires and Mr. Mr. Muscle. (Figure 5). Therefore, the target group of the narrative tends to exert influence on the selection of IP character's head-body proportion. And the proportion serves as a reasonable criterion, regardless of the diversity of language and symbolic expression.

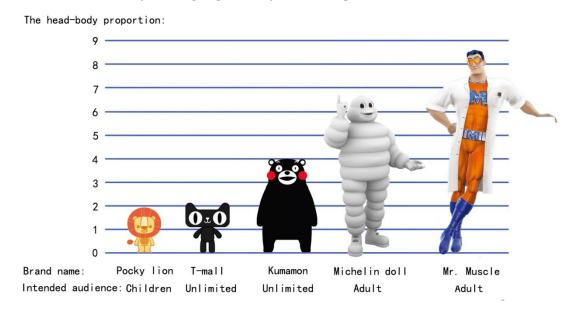


Figure 5. Proportions of cartoon IP characters facing different crowd

Second, the impact of the geometric reconstruction of the silhouette on the recognition of the character. Silhouette includes two categories, i.e., the outer silhouette and the silhouette of interior elements. The outer-silhouette design is creation method that treats the outline of the character as a special visual symbol for purpose of enabling the audience to identify the characters from their outer silhouette. For example, the outer silhouette of Mickey Mouse consists of a round face in the middle and round ears on both sides, which alters the irregular contour of the real mouse with a conventional geometric symbol reconstruction. The softness circles and the clean and concise contour of the combined graphic which take place of the public's stereotype of the ugly appearance of mouse, together with the interesting film and television narrative in the animation as well as the witty and intelligent personality of the character, repeatedly stimulate the audience's senses and cognition, making Mickey Mouse one of the most successful IP images.

Another classic Japanese anime, Pokémon, has done a lot of work on the design of the silhouettes outside the cartoon characters (Figure 6). There is an interaction asking the audience to recognize the cartoon characters by their silhouettes. As the cartoon characters appear, the voiceover asks the audience "Who am I?" and then the silhouette is covered by the character and the identity is unveiled. This multi-narrative model that integrates viewing, listening, and identifying helps hundreds of Pokémon leave a lingering impression on the

audience. To this day, the video game Pokémon which is adapted from the animation still ranks as one of the most influential IPs in the game industry.

The success of the above cases cannot be achieved without the designer's refinement and generalization of the silhouette of the cartoon characters. The simple, clear geometric reconstruction of the characters' complex native elements generates unique features of the characters and makes them easy to be remembered. Symbols that are too complex and not simplified will make it more difficult for the viewers to remember, recall, retell, and understand, hence poor transmission of the information. The design of interior elements, such as the five sense organs, ornaments, should be in accordance with the design of the outer contour. And at the same time, it must have a distinct focus, the emphasis, say, facial features, or clothes and ornaments, depending on the core narrative positioning endowed by the brand. The lack of design focus equals complexity. Consequently, the graphic will lack a distinction between primary factors and less important ones, indirectly giving rise to obscure meaning of the graphic, greater difficulty of being acknowledged and memorized.



Figure 6. Pokémon designed highly recognizable silhouette of cartoon character

Third, the symbol translation between color collocation and brand information. The color choice of cartoon IP characters is on count of the audiences' feelings generated by different colors. According to British psychologist Gregory, "color perception is extremely important to humans - it is the core of visual aesthetics, profoundly affecting our emotional state". In the long development process of mankind, through the classification and summary of the colors presented by different substances in nature, the metaphorical cognition of color symbols has gradually been formed. For example, from the material aspect, red symbolizes fire, blue, water. From the spiritual aspect, red represents passion or danger, while blue symbolizes indifference and reason. The symbolic meaning carried by colors are applied to mankind's life, culture, politics and religion, forming a conventional group interpretation. Here are some examples. It is inspired by the shopping carnival "Black Friday" in the West that Tmall selects black as the main colour for its IP character Tmall, which fits the Taobao's brand theme of trading, shopping and consumption. Fuwa, the Beijing Olympic Mascots, contains a profound metaphor for traditional Chinese culture, as the colors of the characters match the traditional interpretation of the "Five Elements" in China. IBM is called "Big Blue", adopting the semantic transformation between blue and technology. Clowns in red and yellow circus costumes trigger the association with McDonald's. Therefore, the color choice of IP characters is not isolated or unprovoked. Instead, it is closely related to the message conveyed by the brand, built on the basis of the complete brand concept and brand culture and in turn serve the concept and culture.

#### 5. Conclusion

This paper revolves around the role that narrative logic and symbol reconstruction play in the design of cartoon IP characters. It claims that design activities should follow corresponding narrative logic. The design activities can construct, on the basis of the brand's strategic perspective of its Long-term development, a corresponding narrative framework around a main line and a branch line, so as to provide later design activities with overall support. Meanwhile, under the principles of uniqueness, symbolism and utility, personified IP characters can be made and adjusted from three aspects, namely, head height-body height proportion, silhouette, and color collocation. In this way, the brand information is translated or reconstructed into corresponding visual symbols and hence the final landing of the role. In a word, this paper aims at offering theoretical foundation of reference values to the realization of design goals of cartoon IP characters.

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