The Mechanism of the Effect of Anthropomorphized Brand Education on Brand Loyalty

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Abstract. This paper proposes anthropomorphic brand education on the basis of anthropomorphism, and divides the anthropomorphic brand education into two categories: functional anthropomorphic brand education and hedonic anthropomorphic brand education. This article examines how branding influences consumers through anthropomorphic brand education and attempts to explore which kind of anthropomorphic brand education has a more significant effect on brand loyalty and the role of self-esteem in regulating this process. Through empirical research, the impact of different types of anthropomorphic brand education on brand loyalty is analyzed, and self-esteem can play a regulatory role. Consumers with high self-esteem demonstrate more than they do with functional anthropomorphic brand education under hedonic anthropomorphic brand education. Higher brand loyalty, but not much difference in the case of low self-esteem.

Keywords: Anthropomorphic brand education, Self-esteem, Brand loyalty

1   Introduction

Today, with the continuous development of internet technology, many companies are using anthropomorphized characters to represent their brands, such as the squirrel for "Three Squirrels" and the poetic young man for "Jiang Xiaobai" liquor. When these brands are mentioned, consumers associate them with their corresponding brand images, with these virtual images serving as brand spokespersons. At the same time, many companies allow their brands or products to communicate with consumers on major social networks or brand websites using anthropomorphic images or communication styles, engaging in anthropomorphized marketing through online platforms[2].

In practice, anthropomorphized marketing can effectively differentiate a brand and increase consumers' affinity for it. For example, the well-known Chinese beverage brand "Xiao Ming" has created a virtual image spokesperson named "Xiao Ming," a lively and cute boy with a pot lid hat, who has his own personality, zodiac sign, and even blood type. He represents the brand and interacts warmly with consumers, rapidly increasing the brand's visibility and attracting consumers.

Although anthropomorphized marketing has received considerable attention in academia in recent years, there is still relatively little research on it, and what exists is rather scattered, still in the theoretical stage.

In existing academic research, some literature mainly focuses on four aspects: the concept of anthropomorphized marketing, the constitutive dimensions of anthropomorphized marketing, the marketing effects of anthropomorphism, and the influencing factors of anthropomorphic effects[4]. Domestic and foreign scholars mainly discuss how anthropomorphized marketing, as a new marketing method, is embodied from the perspective of enterprises and brands, its formation mechanism, and how it affects consumers from the perspective of consumers. The research direction involves anthropomorphic communication, brand attachment, and the relationship between anthropomorphized brands and consumers.

2   Hypothesis Development and Research Model

2.1   The Influence of Anthropomorphized Brand Education

The pathway of anthropomorphized brand education primarily involves creating different scenarios of anthropomorphized brand education through the use of language, images, and other elements, designing brand anthropomorphism from the perspectives of external appearance, internal emotions and personality, and socialization. In anthropomorphized brand education, the anthropomorphized roles, personalities, and language play the role of educators. Anthropomorphized brand roles can satisfy consumers' social and knowledge needs[3], thereby enhancing consumers' brand attitudes and ultimately increasing the likelihood of consumers' long-term attention to the brand. As more and more companies incorporate anthropomorphic elements into their brands or products, more scholars are beginning to pay attention to the unique advantages of anthropomorphism. When consumers face complex situations (such as consumption situations), they tend to seek easily understandable choices [1]. Anthropomorphism can help consumers better understand brands (Epley et al., 2007), thereby guiding consumers' brand or product choices, which enhances consumer cognition. Brand or product anthropomorphism not only conveys relevant knowledge to consumers but also satisfies consumers' basic social needs during the communication process[7]. Additionally, research shows that anthropomorphism can mitigate consumers' perceived risks, thereby enhancing their evaluations of anthropomorphized products[9]. Moreover, anthropomorphism can even directly enhance consumers' perceptual abilities. According to research, anthropomorphism can fundamentally resonate with consumers and ultimately improve consumer attitudes[7].

Based on this, the following hypotheses are proposed in this study:

H1: Functional and hedonic anthropomorphized brand education will affect brand loyalty.

H2: Compared to functional anthropomorphized brand education, hedonic anthropomorphized brand education has a more significant impact on brand loyalty.

2.2   The Moderating Role of Self-Esteem

The three dimensions of self-esteem: self-worth, self-efficacy, and authenticity, can be derived from two important theoretical developments in social psychology literature. First, in both sociology and psychology, researchers have identified three motivational aspects of the self that give individuals direction and make them feel good about themselves when satisfied. These aspects include motives of feeling valuable and accepted, feeling effective or representative, and finding meaning, efficacy, and coherence in one's life[5,11]. Second, we can better understand self-esteem by placing it in the context of identity theory. In identity theory, the validation of different bases of identity is related to different outcomes of self-esteem[6]. In this study, self-esteem will be measured from the above three dimensions using a scale.

As anthropomorphism is widely applied in practice and the importance of creating and maintaining social connections with consumers grows, the driving effect of anthropomorphism on social connections becomes another important theme in anthropomorphism research. Social connection refers to the aggregation of family, friend, and societal relationships upon which people rely to satisfy social, physiological, and psychological needs[7,10]. Early theories related to animism suggested that the need for interaction would lead people to attribute human roles to objects[8]. From the consumer's perspective, a tendency toward anthropomorphism drives them to actively seek anthropomorphic elements that brands might possess. According to Maslow's hierarchy of needs theory, human needs are categorized as physiological, safety, belongingness, esteem, and self-actualization needs. Self-esteem connects consumption with the consumer's self-concept, suggesting that individuals tend to consume symbolically significant goods to reinforce their self-concepts, leading consumers to exhibit different attitudes and behaviors. Therefore, the moderating role of self-esteem is proposed in this study.

Based on this, the following hypothesis is proposed:

H3: Self-esteem moderates the impact of anthropomorphized brand education on brand loyalty. For consumers with high self-esteem, hedonic anthropomorphized brand education will result in higher brand loyalty compared to functional anthropomorphized brand education.

3   Research Methodology

3.1   Experiment Design

The main subjects of this experiment are college students. College students are a concentrated group, making data collection convenient and cost-effective. Additionally, their high homogeneity can largely reduce the interference of demographic variables on the experiment.

The experiment involves two types of anthropomorphized brand education questionnaires: hedonic and functional. The questionnaire consists of three parts: the first part presents anthropomorphized brand education images; the second part assesses self-esteem; and the third part measures brand loyalty. The analysis and evaluation of the questionnaire are conducted using a Likert 5-point scale, where each item is scored

from 1 to 5, with 1 indicating "strongly disagree," 2 indicating "disagree," 3 indicating "neutral," 4 indicating "agree," and 5 indicating "strongly agree."

To prevent the influence of existing brand associations, a fictional yogurt brand named "BD Yogurt" is used in the experiment. This brand name has not been found in both online and real-life contexts, and the English word does not exist either. This ensures that the experiment is not influenced by brand names and that the brand used in the experiment does not evoke pre-existing impressions. Since college students are familiar with yogurt products, there won't be cognitive barriers.

Furthermore, the experimental materials are designed based on three dimensions of anthropomorphism: external, internal, and social. A virtual brand image is created with emotions and personalities attributed to it, along with the use of social language, making the experimental materials scientifically designed.

In terms of manipulating anthropomorphized brand education, a combination of images and language is primarily used in this study. Three cartoon characters representing "BD Yogurt" are created. In the hedonic anthropomorphized education group, first-person language with human characteristics and external anthropomorphism are used, along with phrases like "My sweetness will melt you" and "Let me smoothly enter your heart" to enhance the participants' perception. In the functional anthropomorphized education group, the same external anthropomorphism is maintained, but the language emphasizes the functional aspects of "BD Yogurt," with phrases like "Boost immunity, invigorate your gut." This aims to enhance participants' awareness of the functional anthropomorphized brand education.

3.2   Empirical Analysis

The relationship between anthropomorphized brand education and brand loyalty was examined using one-way ANOVA with SPSS 23.0 software. Table 1 shows that the mean of hedonic anthropomorphized brand education is higher than that of functional anthropomorphized brand education. Additionally, the analysis results in Table 2 indicate that the influence of anthropomorphized brand education on brand loyalty is significant (p-value = 0.003, less than 0.05). Compared to the functional anthropomorphized brand education group, the hedonic anthropomorphized brand education group achieved higher brand loyalty. Thus, the first and second hypotheses of this study are confirmed.

Table 1. Descriptive Statistics

DV: intention		
Education Type	Mean	SD
Utilitarian	2.8804	.75745
Hedonistic	3.2882	.91430
Total	3.1055	.86910

Source of Table: Obtained from SPSS 22.0 Data Processing.

Table 2. The impact of anthropomorphized brand education on brand loyalty

Testing Inter-Subject Effects					
IV: intention					
Source	III Between-Subjects Sum of Squares	Degrees of Freedom	Mean Square	F	Signifi-cance
Adjusted Model	6.333[a]	1	6.333	8.813	.003
Intercept	1449.207	1	1449.207	2016.600	.000
Education Type	6.333	1	6.333	8.813	.003
error	109.233	152	.719		
Total	1600.781	154			
Adjusted Total	115.567	153			
a. R-squared = .055（adjusted R-squared = .049）					

Source of Table: Obtained from SPSS 22.0 Data Processing.

In the experiment, the moderation effect of self-esteem on the relationship between anthropomorphized brand education and brand loyalty was verified. Participants were divided into two dimensions, high self-esteem and low self-esteem, through scale me asurement. While verifying the moderation effect of self-esteem, the stability of the fir st two hypotheses was also reconfirmed.

One-way ANOVA was used to test the moderation effect of high and low self-estee m. The average scores of hedonic anthropomorphized brand education were higher tha n those of functional anthropomorphized brand education under both high and low sel f-esteem conditions. Among participants with high self-esteem, the difference betwee n hedonic and functional anthropomorphized brand education was significant. Howev er, among participants with low self-esteem, the difference between these two types of anthropomorphized brand education was not significant, demonstrating the difference s in performance between participants with high and low self-esteem when faced with different types of anthropomorphized brand education (Table 3).

Table 3. Descriptive Statistics under the Moderating Effect of Self-esteem

DV: intention				
Education Type	Enhance	Mean	SD	Sample Size
Utilitarian	low self-esteem	2.8185	.65577	31
	high self-esteem	2.9309	.83661	38
	Total	2.8804	.75745	69
Hedonistic	low self-esteem	2.9112	.67089	38
	high self-esteem	3.5931	.97575	47
	Total	3.2882	.91430	85

Source of Table: Obtained from SPSS 22.0 Data Processing.

The results from Table 4 also demonstrate the moderating effect of self-esteem (wit h a p-value of 0.33, less than 0.05), and further confirm the significant impact of anthr

opomorphized brand education on brand loyalty. That is, brands can significantly influ ence consumer brand loyalty through anthropomorphized education. For participants with high self-esteem, the impact of hedonic anthropomorphized brand education on b rand loyalty is more significant compared to functional anthropomorphized brand edu cation. High self-esteem consumers exhibit higher brand loyalty under hedonic anthro pomorphized brand education compared to functional anthropomorphized brand educa tion. However, in the case of low self-esteem, there is not much difference in the impa ct of functional anthropomorphized brand education compared to hedonic anthropomo rphized brand education on brand loyalty (Table 4).

Table 4. The Mediating Role of Self-esteem

Inter-observer agreement test				
DV: intention				
Source	III Between-Subjects Sum of Squares	Degrees of Freedom	Mean Square	F	Signifi- cance
Adjusted Model	16.319[a]	3	5.440	8.222	.000
Intercept	1414.330	1	1414.330	2137.586	.000
Education Type	5.366	1	5.366	8.111	.005
enhance	5.942	1	5.942	8.981	.003
Education Type * en- hance	3.055	1	3.055	4.618	.033
error	99.247	150	.662		
Total	1600.781	154			
Adjusted Total	115.567	153			
a. R-squared = .141 （adjusted R-squared = .124）					

Source of Table: Obtained from SPSS 22.0 Data Processing.

4   Conclusions

This study conducted a comprehensive literature review on brand anthropomorphism, self-esteem, and brand loyalty, and then proposed hypotheses and constructed the re-search model focusing on the three elements of anthropomorphized brand education, self-esteem, and brand loyalty. The empirical research was conducted by analyzing sur-vey data using SPSS 23.0 statistical software.

The experimental results indicate that the impact of anthropomorphized brand edu-cation on brand loyalty is significant, meaning that brands can significantly influence consumers' brand loyalty through anthropomorphized education. Additionally, self-es-teem plays a moderating role in the effect of anthropomorphized brand education on brand loyalty. Consumers with high self-esteem show higher brand loyalty under he-donic anthropomorphized brand education compared to utilitarian anthropomorphized

brand education. However, in the case of low self-esteem, there is not much difference in the effect of utilitarian anthropomorphized brand education versus hedonic anthropomorphized brand education on brand loyalty.

This paper, building upon brand anthropomorphism, introduces the concept of anthropomorphized brand education for the first time. Through empirical research, it confirms that anthropomorphized brand education can enhance consumer brand loyalty, with hedonic anthropomorphized brand education yielding better results. Within anthropomorphized brand education, anthropomorphic images take on the role of "educators" or "experts". This paper integrates consumer information processing models, namely consumer learning, and proposes a path for anthropomorphized brand education, considering it as a bidirectional interaction process with consumer learning.

In this study, considering consumer-level differences and focusing on the theme of "education", self-esteem is introduced as a moderating variable. The empirical evidence supports the moderating role of self-esteem, demonstrating the differences in brand loyalty between consumers with high and low self-esteem when exposed to anthropomorphized brand education. Theoretical contributions of this research exhibit certain levels of innovation.

This study not only enriches existing theories of brand anthropomorphism but also holds practical significance for how businesses can enhance consumer brand loyalty in practice.

Brand managers can refine their target consumers by combining the brand's products, analyzing dimensions of target consumers' self-esteem, and accurately positioning consumers with significant effects. They can then focus on the hedonic appeals of these consumers and use anthropomorphized brand education to stimulate consumers' anthropomorphic perceptions, satisfying their tendencies towards anthropomorphism. Marketers can emphasize hedonic anthropomorphized brand education by creating various anthropomorphized brand education scenarios using text, images, etc., designing the brand's anthropomorphism from the aspects of its appearance, internal emotions and personality, and socialization, to satisfy consumers' hedonic appeals as much as possible.

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