The Impact of Traditional Cultural Elements in Products on Brand Status: Evidence from Young Consumers

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Full Text

The Effect of Product Traditional Cultural Load on Brand Status: Evidence from Young Consumers

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Abstract

Four behavioral experiments and one brain imaging study consistently demonstrate that increasing a product's traditional cultural load enhances consumers' perceived brand status. Endowing products with greater traditional cultural connotations activates consumers' social cognition and reward brain regions, elevates their perception of social value, and consequently influences their evaluations of brand status. Product type moderates the effect of traditional cultural load on brand status, with the empowering effect being more pronounced for utilitarian products than for hedonic products, where the impact on brand status perception is negligible. These findings expand the scope of cultural marketing research and reveal the cognitive neural mechanisms through which traditional Chinese culture empowers brand status, offering important practical implications for utilitarian product manufacturers seeking to leverage traditional Chinese culture for brand status management.

Keywords: traditional culture, product type, perceived social value, brand status, consumer neuroscience

1 Introduction

The *2021 China Brand Development Report* highlights that Chinese brand development is experiencing a "national style fever," with the integration of products and traditional culture gaining increasing popularity. Previous research has found that combining products with traditional Chinese cultural elements positively influences domestic consumers' attitudes and purchase behaviors (Chai et al., 2015). However, how traditional Chinese cultural elements affect consumers' perceptions of brands, particularly brand status, remains empirically underexplored. This study focuses on the impact of products' traditional Chinese cultural attributes on brand status (rather than the product itself) and investigates the underlying mechanisms through behavioral and cognitive neuroscience methods.

Existing literature on brand status has predominantly examined established

brands, emphasizing the social value that brand status confers upon consumers. For instance, research on conspicuous consumption suggests that people purchase high-status or luxury products to acquire greater social value (Griskevicius et al., 2007; Rucker & Galinsky, 2009; Wang & Griskevicius, 2014). Yet when consumers lack knowledge about a brand or when a brand is in its infancy without established awareness, how can evaluations of brand status be enhanced? Can endowing products with greater social value reciprocally elevate brand status? Our behavioral and neuroimaging results consistently confirm that the traditional Chinese cultural connotations embedded in products can enhance consumers' perceived social value, thereby improving their evaluations of the product's brand status.

This study not only deepens our understanding of traditional Chinese culture's role in marketing by extending its influence to the brand level but also validates the crucial role of perceived social value in mediating the effect of traditional cultural load on brand status through both behavioral and cognitive neuroscience approaches.

1.1 Brand Status and Product Traditional Cultural Load

Brand status refers to the position, rank, or level of social prestige that people assign to a brand, which directly affects brand value (Eastman et al., 1999) and influences consumer attitudes and purchase behaviors. When consumers lack knowledge about a brand's status, they often infer it from other marketing cues such as product quality, price, exclusive distribution channels, and retailer reputation (Dawar & Parker, 1994; Keller, 2009). However, in the absence of these highly diagnostic brand status cues—for example, when facing a startup brand—how do consumers evaluate brand status?

Prior research indicates that product design is increasingly serving as a brand inference cue, affecting both consumer attitudes toward products and brand image (Park & Hadi, 2020). On one hand, consumers can infer brand status from superficial product cues such as packaging shape (Chen et al., 2020), size (Dubois et al., 2012), and material (Meert et al., 2014). On the other hand, certain deep cues also influence brand status evaluations. Solja et al. (2018) demonstrated that printing a brief brand story on product packaging can improve consumer evaluations and deepen emotional connections with the brand.

In cultural marketing research, traditional culture often functions as a social value influencing people's psychology and consumption behavior (Hu et al., 2018). In recent years, with rising national cultural confidence and the development of cultural creative industries, an increasing number of products have integrated traditional Chinese cultural design elements, thereby enhancing their traditional cultural load (Chai et al., 2015). Drawing on definitions of cultural load from linguistic research (Hu, 1999), we conceptualize product traditional cultural load as the degree to which a product highlights traditional culture and the depth of traditional cultural connotations it carries.

Existing studies have found that appropriately adding traditional cultural elements to product design can enhance consumers' purchase intentions (Qin et al., 2019) and satisfaction (Chai et al., 2015). Consumers can form positive emotional experiences by appreciating a product's cultural connotations (Arnould & Thompson, 2007). Thus, injecting cultural elements into products can influence consumer attitudes and cognitions toward both the product and the brand. Wu (2022) derived preliminary conclusions through interviews that product traditional cultural load can enhance consumers' perceptions of brand authenticity, thereby successfully constructing a non-conspicuous luxury brand image in people's minds. For example, emphasizing the use of traditional Chinese craftsmanship heritage (such as kesi silk weaving techniques) can increase consumers' sense of rarity and cherishability, thereby enhancing brand authenticity evaluations and ultimately helping brands build non-conspicuous luxury brand images. Therefore, Wu's (2022) research indirectly argues for the empowering effect of traditional culture on brand status. Based on this, we hypothesize that product traditional cultural load, as a brand status inference cue, may influence consumers' evaluations of product brand status.

H1: Product traditional cultural load can enhance consumers' evaluations of product brand status.

1.2 Traditional Cultural Load and Product Type

Different product types, such as hedonic versus utilitarian products, provide consumers with distinct values and consequently affect their perceptions and evaluations (Choi & Lee, 2012). Utilitarian products refer to consumer goods that provide instrumental and functional value, such as stationery and household cleaners (Dhar & Wertenbroch, 2000). Consumers typically purchase utilitarian products to achieve tangible, objective outcomes and solve daily difficulties and problems. In contrast, hedonic products refer to consumer goods that provide sensory pleasure and enjoyment, such as chocolate and aromatherapy sprays (Holbrook & Hirschman, 1982).

Amatulli et al. (2019) found that product type information can alter consumers' perceptions of product luxury. Compared to utilitarian messages emphasizing functional value, hedonic appeals better satisfy consumers' pursuit of personal style and taste, thereby enhancing perceived luxury. Differences in product value may also lead to variations in consumers' expected benefit perceptions across product types (Choi & Lee, 2012). Chou et al. (2021) discovered that, compared to hedonic products, combining cute elements with utilitarian products better enhances consumer well-being and improves attitudes and purchase intentions toward utilitarian products. This is because hedonic products primarily provide emotional value, while utilitarian products deliver more functional value; the combination of hedonic products with cute elements reduces the marginal utility of the emotional value provided by cute elements, whereas combining utilitarian products with cute elements produces a more significant increase in perceived value (Chou et al., 2021).

Similar to cute elements, the value provided by traditional cultural elements to consumers is also non-functional. Therefore, when traditional cultural elements are combined with different product types, similar effects may occur: the enhancement effect of traditional cultural elements on utilitarian products may be greater than for hedonic products that already provide non-functional value. When utilitarian products carry higher traditional cultural load, consumers can obtain both functional and non-functional value, thereby increasing their evaluations of the brand status of high traditional cultural load utilitarian products. For hedonic products, which already possess strong non-functional value, the marginal benefit of additional non-functional value from high traditional cultural load is smaller, thus the empowering effect of traditional cultural load on hedonic product brand status may be weakened. Accordingly, we propose that product type may influence people's evaluations of brand status for products with different traditional cultural loads.

H2: Product type moderates the positive effect of traditional cultural load on brand status evaluations. Compared to hedonic products, traditional cultural load significantly enhances consumers' evaluations of utilitarian product brand status.

1.3 Culture, Product Perceived Value, and Brand Status

Regarding the definition of traditional culture, foreign scholars have noted that traditional culture constitutes the unique achievements of human groups, comprising implicit and explicit schemas, symbolically acquired and transmitted behaviors, and their concrete manifestations in material products. The core of traditional culture is the concept of "tradition," particularly its associated values, with key features being the "intergenerational transmission" of knowledge, beliefs, values, customs, and norms (Daskon & Binns, 2009; Kroeber & Kluckhohn, 1953). Domestic scholars have offered similar perspectives. Tang (2018) views traditional culture as a broad concept referring to the composite whole of all things created by humans in history, endowed with symbolic meaning, and transmitted to the present day. Zhuang (1997) specifically describes the concept of traditional Chinese culture (hereinafter referred to as traditional culture) as the material and spiritual historical heritage created by Chinese ancestors that can influence modern people and society, encompassing folklore, sites, cultural relics, literature and art, modes of thinking, and value concepts. These definitions encompass characteristics of historicity, nationality, symbolism, and intergenerational influence, representing a broad and complex concept. Based on this, we conceptualize traditional culture as the complex whole of all implicit and explicit schemas, behaviors, and materials created by national ancestors in history, highlighting national characteristics, rich in symbolic meaning, and continuing to the present day.

Culture possesses important social attributes. The shared values, beliefs, morals, and practices among people under the same culture provide them with common goals and collective identity (Wang & Zheng, 2015). When stimulated

by culture, their commonly held cultural attributes are activated, thereby strengthening the social bonds that unite them (Briley & Wyer Jr., 2002). Correspondingly, culture also serves as an important cue for distinguishing identity and relationships, with people from different cultures forming different social classifications (Tajfel & Turner, 2004). People use a "culture-identity" link to define their identity through purchasing and using products imbued with different cultural connotations (Berger & Ward, 2010; Côté, 1996; Gao et al., 2009).

Both social categorization theory and the "culture-identity" link theory suggest that culture can be a tool for people to shape their social identity and image. Product perceived social value refers to the value that a product confers upon consumers to enhance or change their social image, as evident in measures of perceived social value: "…helps me gain recognition from others," "…leaves a good impression on others," "…enhances others' opinions of me" (Sweeney & Soutar, 2001). Integrating social categorization theory, the "culture-identity" link theory, and the definition of perceived social value, we infer that incorporating traditional culture into products enables young Chinese consumer groups to shape their social image through the traditional cultural connotations carried by products, influence others' perceptions of themselves, and thereby enhance the product's perceived social value.

Social value is also closely related to brand status. High-status brands often embody high social value; the social value provided by brands and products is one of the primary motivations driving people to purchase high-status brand products (Jin et al., 2017). When consumers are motivated to acquire social status or enhance self-worth, brand status plays an important role in their purchase decisions (Rucker & Galinsky, 2009; Sivanathan & Pettit, 2010). Research on conspicuous consumption confirms that purchasing and using high-end brands and luxury goods (i.e., conspicuous consumption) can bring consumers more social value (Griskevicius et al., 2007; Rucker & Galinsky, 2009; Wang & Griskevicius, 2014), whereas low-end brands provide less such social value. Accordingly, we speculate that product traditional cultural load may influence consumers' evaluations of product brand status by enhancing their perceived social value.

H3: Enhancing a product's traditional cultural load can strengthen consumers' perception of social value for utilitarian products, thereby influencing their evaluations of brand status.

This study comprises four experiments. Experiment 1 investigates the main effect of product traditional cultural load on brand status, providing preliminary evidence for subsequent experiments. Experiment 2 identifies the boundary conditions for the empowering effect of product traditional cultural load, further focusing the research on utilitarian products. Experiments 3a and 3b examine the mediating role of perceived social value in the effect of product traditional cultural load on brand status by measuring three dimensions of perceived value (social value, functional value, and emotional value). Additionally, Experiments 3a and 3b demonstrate the unique effect of traditional Chinese culture in en-

hancing brand status by comparing traditional culture with modern culture and Chinese culture with Western culture. Experiments 4a and 4b further validate the main effect and mediating effect through laboratory experiments and functional near-infrared spectroscopy neuroimaging experiments.

Experiment 1

The purpose of Experiment 1 was to examine the effect of product traditional cultural load on brand status and test Hypothesis 1. We manipulated product traditional cultural load through textual descriptions and examined its impact on brand status. Additionally, since price serves as a known inference cue for brand status (Dawar & Parker, 1994), we included a measure of consumers' willingness to pay to enhance the robustness of our results.

2.1 Experimental Design

We used G*Power 3.1.9.2 to estimate the required sample size. With $\alpha = 0.05$, power $(1–\beta) = 0.95$, and effect size d = 0.5, the planned total sample size needed was 176. Accordingly, we recruited 178 participants through the Credamo survey platform. Eight participants failed the attention check, leaving a final sample of 170 participants (mean age = 29.89 ± 6.46 years, mean monthly income = 7,463.62 ± 4,003.90 RMB; 101 females, 59.4%) who completed the online questionnaire. The experiment employed a single-factor between-subjects design, with participants randomly assigned to either the low traditional cultural load group (n = 86) or the high traditional cultural load group (n = 84).

The questionnaire consisted of two main parts. First, we informed participants that a paper brand hoped to conduct market research on its new product and invited them to carefully read the product's textual and visual materials and provide honest evaluations.

In the low traditional cultural load group, participants were told the new tissue product was named "Fast-Growing Reed Paper" and read the following product description:

"Compared to trees, reeds have a short growth cycle, high growth density, and strong regenerative capacity, making them an environmentally friendly paper-making raw material. 'Fast-Growing Reed Paper' uses reed pulp as raw material, requiring no tree cutting, no bleaching, and no water pollution, making it a healthy and environmentally friendly green household paper."

In the high traditional cultural load group, participants viewed the same product image as the low cultural load group but were told the new product was named "Timely Nurturing Reed Paper" and read the following product description:

"In *Mencius · King Hui of Liang I*, it is written, 'If axes and bills enter the mountains and forests at the proper time, the timber will be inexhaustible,' advocating for the sustainable development of ecological environmental protection. Mencius's cultural philosophy of 'timely nurturing' has been passed down

in China for millennia. 'Timely Nurturing Reed Paper' uses reed pulp as raw material, requiring no tree cutting, no bleaching, and no water pollution, making it a healthy and environmentally friendly green household paper."

To strengthen the manipulation of traditional cultural load, after reading the materials, we asked participants to briefly introduce the tissue's name and origin in writing.

In the second part of the experiment, participants rated the brand status of the tissue brand. Brand status was adapted from Chen et al. (2020), asking participants to indicate which tier the tissue brand belonged to within the same industry (tissue industry) (1 = top luxury brand, 7 = low-end mass-market brand). Participants also reported their willingness to pay for a pack of such tissue by answering, "How much would you be willing to pay for a pack of this tissue (in RMB)?"

Finally, participants responded to a manipulation check item rating the extent to which the tissue possessed traditional culture (1 = very low, 7 = very high). All participants reported basic demographic information (including gender, age, monthly income, etc.).

2.2.2 Statistical Results

Independent samples t-test results showed that participants' ratings of traditional cultural load were significantly higher for the high cultural load group than for the low cultural load group (M_{low} = 4.86, SD = 1.50; M_{high} = 6.30, SD = 0.72; t(168) = –1.91, $p < 0.001$, Cohen's d = –1.22), confirming the success of our manipulation. Correlation analysis revealed no significant relationships between gender, age, monthly income level, and brand status ratings (rs > –0.03, ps > 0.052).

After reverse-scoring the brand status measure, we analyzed differences in brand status perception between the two groups.

Results confirmed that participants rated the brand status significantly higher in the high traditional cultural load condition than in the low cultural load condition (M_{low} = 3.73, SD = 1.24; M_{high} = 4.61, SD = 1.13; t(168) = –4.80, $p < 0.001$, Cohen's d = –0.74). After reverse-scoring, higher scores represent higher brand status (the same applies below).

These findings indicate that people perceive brands with higher product traditional cultural load as having higher brand status. Additionally, participants were willing to pay higher prices for products with high traditional cultural load (M_{low} = 6.41, SD = 3.82; M_{high} = 8.34, SD = 6.54; t(168) = –2.35, p = 0.020, Cohen's d = –0.36), further corroborating the brand status-enhancing effect of traditional cultural load.

Experiment 2

Experiment 1 confirmed the positive effect of product traditional cultural load on brand status. Increasing product traditional cultural load can enhance consumers' perception of brand status. Moreover, from a product consumption perspective, consumers are also willing to pay more money for products with traditional cultural load. Price, as a brand status cue, implies consumer recognition of the product's brand status (Dawar & Parker, 1994).

The experimental materials used in Experiment 1 (i.e., tissue paper) primarily serve as utilitarian products in daily life. Whether the brand status of other product types is similarly affected when carrying different degrees of traditional cultural connotations remains to be further investigated. Therefore, Experiment 2 incorporates product type into the research framework to examine whether the effect of product traditional cultural load on brand status differs across product types.

3 Experiment 2

People obtain different values when consuming different product types, and product type influences consumer attitudes and behaviors (Zhao et al., 2007). Building on this theoretical foundation, Experiment 2 further explores the specific differences in how product traditional cultural load affects brand status across different product types, testing Hypothesis 2 that product type moderates the enhancing effect of product traditional cultural load on brand status evaluations.

The experiment employed a 2 (traditional cultural load: low vs. high) × 2 (product type: utilitarian vs. hedonic) between-subjects design. Using G*Power to estimate the required sample size, results showed that 210 participants were needed to achieve statistical power of $\alpha = 0.05$ and power = 0.95 with effect size f = 0.25. We recruited 280 participants through the Credamo survey platform, of whom 10 were excluded for failing the attention check, leaving 270 participants (mean age = 28.00 ± 7.08 years; 135 females, 50%) who completed the online questionnaire.

The procedure of Experiment 2 was similar to Experiment 1. Participants were randomly assigned to one of four conditions. At the beginning of the experiment, participants read a product description about chrysanthemum tea. We manipulated perceptions of product type and traditional cultural load by varying the content of the materials across groups (detailed materials see Appendix B). For example, in the high traditional cultural load utilitarian condition, the product description emphasized product efficacy: "The *Shennong Bencao Jing* states that chrysanthemum tea 'benefits qi and blood, slightly disperses and benefits blood vessels,' and can enhance capillary resistance…" In the low traditional cultural load hedonic condition, the description focused on experiential value: "Research confirms that drinking chrysanthemum tea can relax the mind and make emotions leisurely and carefree…"

After reading the product information, participants evaluated the brand status of the chrysanthemum tea brand using the same measure as in Experiment 1. To confirm the success of our product type manipulation, we provided definitions of hedonic and utilitarian products (Dhar & Wertenbroch, 2000; Holbrook & Hirschman, 1982) and asked participants to rate the extent to which the chrysanthemum tea was a hedonic or utilitarian product based on the material they had just read (1 = purely utilitarian product, 7 = purely hedonic product). The manipulation check for product traditional cultural load followed the same method as in Experiment 1. Finally, we collected participants' personal information.

3.2 Statistical Results

First, the product type manipulation check showed that when product information emphasized efficacy such as "enhancing capillary resistance," it was perceived as more utilitarian (M = 2.77, SD = 1.36); when it emphasized value such as "relaxing the mind," it was perceived as more hedonic (M = 4.93, SD = 1.41). The difference in perceived product type was significant (t(268) = 12.81, p < 0.001, Cohen's d = –1.56), confirming successful manipulation. Additionally, the traditional cultural load score for chrysanthemum tea was significantly higher in the high cultural load condition (M = 5.92, SD = 0.80) than in the low cultural load condition (M = 5.11, SD = 1.21, t(268) = 6.43, p < 0.001, Cohen's d = 0.79), confirming successful manipulation of traditional cultural load. Notably, the manipulation of traditional cultural load did not change participants' judgments of product type (p = 0.896).

After reverse-scoring the brand status measure, we analyzed the moderating effect of product type using SPSS Process Model 1 (Hayes, 2013). Since participants' age (r = 0.24, p < 0.001) and monthly income (M = 6,556.31, SD = 4,187.70, r = 0.03, p = 0.026) were significantly positively correlated with brand status, they were included as covariates in the regression analysis. Results showed that the main effect of traditional cultural load on brand status was not significant (B = 0.03, SE = 0.07, p = 0.608, 95% CI = [–0.10, 0.16]). However, the effect of product type on brand status was significant (B = 0.23, SE = 0.07, p = 0.001, 95% CI = [0.10, 0.36]), and there was a significant interaction effect (B = –0.15, SE = 0.01, p = 0.020, 95% CI = [–0.28, –0.02]). Simple main effects analysis revealed that for utilitarian products, high traditional cultural load significantly enhanced brand status perception (M_{high} = 3.38, SD = 0.14; M_{low} = 3.01, SD = 0.13; p = 0.047, ^{2} = 0.02); for hedonic products, product traditional cultural load did not affect brand status perception (M_{high} = 3.54, SD = 0.13; M_{low} = 3.78, SD = 0.13; p = 0.193, ^{2} = 0.01). These results indicate that product traditional cultural load has a greater empowering effect on utilitarian product brand status.

[Figure 1: see original paper]

Experiment 3

The first two experiments demonstrated that utilitarian product traditional cultural load has an empowering effect on brand status, but the underlying mechanism remains unclear. Therefore, Experiment 3 investigates the mediating mechanism through which traditional cultural load empowers utilitarian product brand status. Additionally, Experiment 3 includes two other cultural conditions to rule out the possibility that other types of cultural loads have similar empowering effects on brand status, thereby validating the uniqueness of traditional culture.

4.1 Pretest

To ensure successful manipulation of cultural type and cultural load in the experimental materials, we designed a single-factor within-subjects pretest. We recruited 400 participants through the Credamo platform, of whom 23 failed the attention check, leaving 377 participants (mean age = 29.14 ± 8.03 years, mean monthly expenditure = 7,900.23 ± 8,574.80 RMB; 256 females, 67.9%) who completed the online questionnaire.

All participants viewed three product images in random order: high traditional cultural load (Qing Dynasty winged cup), low traditional cultural load (two-handed grip cup), and high modern cultural load (champion gold trophy), and rated the extent to which each image contained traditional versus contemporary culture (1 = contains a lot of traditional culture, 7 = contains a lot of modern culture).

Repeated measures ANOVA confirmed significant differences among the three cultural symbols on the traditional-contemporary cultural load dimension ($F(2, 752) = 422.73$, $p < 0.001$, $^2 = 0.53$). The Qing Dynasty winged cup received significantly lower scores ($M = 1.94$, $SD = 1.15$) than the two-handed grip cup ($M = 3.73$, $SD = 1.71$, $p < 0.001$), which in turn scored significantly lower than the champion trophy ($M = 4.92$, $SD = 1.66$, $p < 0.001$). The pretest results demonstrated the effectiveness of the experimental materials: compared to the two-handed grip cup, the winged cup had higher traditional cultural load, while the champion gold trophy had higher contemporary cultural load. The three products were comparable along the "traditional-modern" cultural dimension.

4.2 Experiment 3a

This experiment employed a single-factor (high modern culture vs. low traditional culture vs. high traditional culture) between-subjects design. Using G*Power to estimate the required sample size, results showed that 252 participants were needed to achieve statistical power of $\alpha = 0.05$ and power = 0.95 with effect size $f = 0.25$. We recruited 300 university students from a university to participate in the online experiment via Wenjuanxing, of whom 4 were excluded for failing the attention check, leaving 296 participants (mean age =

23.97 ± 5.24 years, mean monthly expenditure = 2,400.87 ± 1,965.89 RMB; 173 females, 58.4%) who completed the online questionnaire.

4.2.1 Experimental Design The formal experiment procedure was similar to Experiment 1. First, participants were randomly assigned to one of three conditions and told that a brand hoped to launch a new water cup and was conducting market research, requiring participants to make a series of evaluations based on the upcoming cup description. We manipulated cultural load levels by varying the design inspiration source while keeping other textual materials identical, primarily introducing the cup's functional design (detailed materials see Appendix C). For example, the high modern cultural load group received the following material:

"The shape of this water cup is inspired by champion gold trophies, adopting a fully symmetrical design language. The fully curved cup body with bilateral ears extending downward from the cup rim satisfies functional water cup requirements while displaying aesthetic beauty. The curved details of the handle meet ergonomic requirements for fingers…"

In the low traditional cultural load product condition, participants read the following description:

"The shape of this water cup is inspired by two-handed grip design, adopting a fully symmetrical design language. The fully curved cup body with bilateral ears extending downward from the cup rim satisfies functional water cup requirements while displaying aesthetic beauty. The curved details of the handle meet ergonomic requirements for fingers…"

The high traditional cultural load product group received the following material:

"The shape of this water cup is inspired by ancient Chinese wine vessels—winged cups, adopting a fully symmetrical design language. The fully curved cup body with bilateral ears extending downward from the cup rim satisfies functional water cup requirements while displaying aesthetic beauty. The curved details of the handle meet ergonomic requirements for fingers…"

[Figure 2: see original paper]

Further, after merging the high modern cultural load and low cultural load groups, we again used SPSS Process Model 4 to verify the mediating role of perceived social value (indirect effect: B = 0.08, SE = 0.03, 95% CI = [0.03, 0.14]).

4.3 Experiment 3b

Experiment 3a explored the "traditional-contemporary" dimension of culture, while Experiment 3b manipulates traditional culture along the "Eastern-Western" dimension. Experiment 3b employed a single-factor (high traditional Chinese cultural load vs. low traditional cultural load vs. high traditional

Western cultural load) between-subjects design. We recruited 300 participants from the Credamo online survey platform, of whom 2 were excluded for failing the attention check, leaving 298 participants (mean age = 30.36 ± 7.59 years, mean monthly expenditure = 8,812.58 ± 11,507.29 RMB; 196 females, 65.8%) who completed the online questionnaire.

4.3.1 Experimental Design Participants were randomly assigned to one of three conditions and viewed an image of a laptop handbag (see Appendix D). In the high traditional Western cultural load condition (hereinafter high Western cultural load group), participants saw a handbag style called "Oil Painting Cedar," featuring an image of a cedar tree depicted in oil painting style, presenting a "Christmas tree" image. In the high traditional Chinese cultural load condition (hereinafter high traditional cultural load group), the handbag style was named "Ink Wash Guest-Greeting Pine," featuring a traditional Chinese ink wash painting style of a guest-greeting pine tree. In the low traditional cultural load control group (hereinafter low traditional cultural load group), the handbag style was named "Summer Ginkgo," featuring a real photograph of a ginkgo tree.

Similar to Experiment 3a, after viewing the handbag, participants evaluated its brand status (1 = top luxury brand, 7 = low-end mass-market brand). They then reported their perceived social value (Sweeney & Soutar, 2001). In Experiment 3b, we implemented stricter controls on experimental materials. On one hand, we asked participants to evaluate the cultural load of the handbag (1 = contains a lot of Western traditional culture, 7 = contains a lot of Chinese traditional culture) as a manipulation check. On the other hand, to exclude potential interference from image attractiveness, participants rated the attractiveness of the image on the handbag (1 = not at all attractive to me, 7 = very attractive to me). Additionally, participants reported their frequency of daily laptop handbag use (1 = never use laptop bag, 7 = use laptop bag every day) and frequency of carrying laptop handbags outside (1 = never carry laptop bag outside, 7 = always carry laptop bag when going out). Finally, we asked all participants about the importance they placed on product functional, emotional, and social values when purchasing laptop handbags (1 = not at all important, 7 = very important) and collected basic demographic information.

4.3.2 Experimental Results First, ANOVA results showed significant differences among the three groups in Eastern-Western traditional cultural load scores ($F(2, 295) = 69.09$, $p < 0.001$, $^{2} = 0.32$). The high Western cultural load group score ($M = 4.20$, $SD = 1.70$) was significantly lower than the low traditional cultural load control group ($M = 5.61$, $SD = 1.16$, $p < 0.001$, Cohen's $d = -0.97$) and also significantly lower than the high traditional cultural load group ($M = 6.26$, $SD = 0.72$, $p < 0.001$, Cohen's $d = -0.67$). Furthermore, we conducted ANOVA on image attractiveness levels, finding no significant differences across the three conditions (M_{high} Western = 5.21 ± 1.28, M_{low} traditional = 5.11 ± 1.59, M_{high} Chinese = 5.36 ± 1.48, $F(2, 295) = 0.76$,

p = 0.47, ^{2} = 0.01). The manipulation of cultural load was successful, and the experimental materials did not differ in attractiveness levels.

Next, after reverse-scoring the brand status measure, we tested the main effect. Since participants' age, education level, image attractiveness, daily usage frequency of handbags, frequency of carrying them outside, and importance placed on various value dimensions when purchasing were all significantly correlated with brand status (see Table 1), we included these variables as covariates in the ANOVA analysis. Results showed significant differences in brand status evaluations among the three groups (F(2, 295) = 13.76, p < 0.001, ^{2} = 0.09). Participants' brand status evaluations in the high Western traditional cultural load group (M = 3.78, SD = 1.26) were similar to those in the low traditional cultural load control group (M = 3.76, SD = 1.48, p = 1.000, Cohen's d = – 0.01). However, in the high Chinese traditional cultural load group, participants perceived the handbag's brand status (M = 4.48, SD = 1.16) as significantly higher than both the low traditional cultural load control group (p = 0.001, Cohen's d = 0.54) and the Western traditional cultural load group (p < 0.001, Cohen's d = 0.58).

Finally, we included variables significantly correlated with brand status from Table 1 as covariates, created dummy variables for the Chinese and Western traditional cultural load groups (with the low traditional cultural load group as the reference group), used perceived social value as the mediating variable, and brand status as the dependent variable, and tested the mediating effect using SPSS Process Model 4 (Hayes, 2013). Results (see [Figure 4: see original paper]) showed that, consistent with Experiment 3a, high Western traditional cultural load (vs. low traditional cultural load) had no significant total, direct, or indirect effects on brand status. In contrast, high Chinese traditional cultural load (vs. low traditional cultural load) had significant total, direct, and indirect effects on brand status (indirect effect: B = 0.12, SE = 0.05, 95% CI = [0.03, 0.23]). Compared to Western culture, Chinese traditional culture has a unique empowering effect on brand status, with perceived social value serving as a mediator.

[Figure 4: see original paper]

Experiment 3 re-examined the empowering effect of high traditional cultural load on utilitarian product brand status and the mediating role of perceived social value. Additionally, Experiments 3a and 3b validated the unique role of Chinese traditional culture in empowering brand status. This uniqueness suggests that using culture to improve identity may require two important prerequisites. First, the culture must have clear distinctiveness to provide unique identity characteristics for the message sender (i.e., the consumer), thereby enhancing their social value. Another prerequisite is that the culture must be recognized and endorsed by the target population, possessing high cultural identity (Oswald, 1999) that can provide a sense of belonging for the message sender. Cultural identity refers to an individual's sense of belonging to their cultural group (Karjalainen, 2020). If people lack sufficient identification with a cultural

symbol, the message sender (i.e., the consumer) will not have adequate social motivation to use that cultural symbol to improve their social image. Simultaneously, the message receiver (i.e., social others) will also find it difficult to perceive, understand, and endorse the social value conveyed by that cultural symbol.

Most people in modern society live immersed in modern culture in their daily lives. Precisely because of this, modern culture, as an everyday culture, provides less clear distinctiveness when combined with products. Even if certain modern subcultures can provide clear distinctiveness for some consumers, they cannot be recognized by the general public and thus cannot provide universal social value. In contrast, traditional culture is a group symbol formed through long-term accumulation, possessing a certain sense of distance and distinct connotations and value attributes. When consumers have high identification with traditional culture, traditional culture can convey clear social value to the public.

The reason why Western culture did not produce the same brand status empowering effect as traditional culture can be found in research on cultural identity (Oswald, 1999) and cultural country of origin (Seo et al., 2021). As mentioned earlier, identification with cultural identity is also an important prerequisite for "culture-identity" management (Oswald, 1999). Young Chinese consumers are essentially members of the Chinese ethnic group and have stronger identification with Chinese culture. Coupled with the recent rejuvenation of the Chinese nation and the establishment of cultural confidence, young Chinese consumers' identification with traditional Chinese culture continues to rise. Therefore, compared to Western culture, when young Chinese consumers use products with high Chinese traditional cultural load, the image changes they bring about are more likely to be perceived, understood, and endorsed by others, thereby enhancing their perception of the product's social value.

Experiment 4

Experiment 4 had three main objectives: First, to enhance the ecological validity of our findings through offline experiments and scenario design; second, to distinguish the specific value provided by product traditional cultural load by examining participants' choices between tissues with different cultural loads across different scenarios, further validating the mechanism through which product traditional cultural load empowers brand status; additionally, Experiment 4 incorporated cognitive neuroscience measures, using functional near-infrared spectroscopy to explore the cognitive neural mechanisms underlying the empowering effect of traditional cultural load on brand status.

5.1 Experiment 4a

Experiment 4a employed a single-factor (low traditional cultural load vs. high traditional cultural load) within-subjects design. Using G*Power, we calculated that paired samples t-tests and repeated measures ANOVA required at least

44 participants to achieve statistical power of $\alpha = 0.05$ and power = 0.95 with effect size f = 0.25. Additionally, referencing previous research (Wang & Wen, 2018), within-subjects mediation effect analysis with two levels requires at least 60 valid samples. Based on this, we recruited 113 participants from a university for the laboratory experiment, of whom 1 failed the attention check, resulting in 112 valid responses (mean age = 22.83 ± 2.88 years, mean monthly expenditure = 2,383.04 ± 1,146.31 RMB; 75 females, 67%).

At the beginning of the experiment, participants received two tissue papers of noticeably different quality and had 30 seconds to carefully feel the differences between them. Next, participants were informed that these two tissue papers were new products from two different sub-brands of a company. The company needed to determine respective promotional strategies for the two tissue brands and invited consumers to participate in the strategy development process. After reading the promotional strategies for the two different traditional cultural loads (i.e., the "Timely Nurturing" and "Fast-Growing" materials used in Experiment 1), participants matched the two tissue samples with the two brand promotional strategies. Additionally, participants set prices for the two tissue brands by reporting their willingness to pay for each tissue brand.

After completing the tissue-strategy matching task, all participants viewed three different scenario descriptions (including functional, social, and emotional scenarios) (see Appendix E for detailed descriptions) in random order and decided whether they would choose "Fast-Growing" or "Timely Nurturing" tissue in each scenario (1 = would definitely use "Fast-Growing" reed paper, 10 = would definitely use "Timely Nurturing" reed paper). Subsequently, to verify the mediating role of product social value, we adapted Sweeney and Soutar's (2001) perceived value scale and asked participants to evaluate the social value of the "Fast-Growing" and "Timely Nurturing" tissues, with questions such as "Timely Nurturing reed paper helps me gain recognition from others" (1 = strongly disagree, 7 = strongly agree). To replicate the main effect, we measured the brand status of both "Timely Nurturing" and "Fast-Growing" tissues using the same questions as in Experiment 2.

As a manipulation check for the scenario design, participants also answered, "In this scenario, what value of the paper would you consider?" for each of the three scenarios, and rated the importance of functional value, emotional value, and social value (0 = would not consider at all, 10 = would definitely consider). Finally, all participants reported demographic information including gender, age, and monthly expenditure.

5.1.2 Data Results

First, we examined the tissue-strategy matching results through binary analysis. A total of 91 participants (81%) matched "Timely Nurturing" with the higher-quality tissue, significantly more than the 21 participants (19%) who matched "Fast-Growing" with the higher-quality tissue ($p < 0.001$). The ma-

nipulation check results from Experiment 1 had already demonstrated a significant difference in traditional cultural load between the "Timely Nurturing" and "Fast-Growing" promotional strategies, with "Timely Nurturing" carrying significantly higher traditional cultural load than "Fast-Growing." Therefore, people tended to associate higher traditional cultural load with higher-quality tissue.

After reverse-scoring the brand status measure, we analyzed brand status differences between "Timely Nurturing" and "Fast-Growing" using paired samples t-tests. Results confirmed that people perceived the high traditional cultural load "Timely Nurturing" tissue as more suitable for development in high-end markets than the low traditional cultural load "Fast-Growing" tissue (M_{Timely} = 4.79 ± 1.37; M_{Fast} = 2.73 ± 1.45; t(111) = 9.91, p < 0.001, Cohen's d = 1.46). Additionally, paired samples t-tests on willingness to pay found that participants' willingness to pay for "Timely Nurturing" tissue (M = 4.76 ± 2.54) was significantly higher than for "Fast-Growing" tissue (M = 3.31 ± 1.69, t(111) = 7.86, p < 0.001, Cohen's d = 0.67), again validating the brand status-enhancing effect of product traditional cultural load.

[Figure 5: see original paper]

Subsequently, we examined the relationship between product perceived value and product traditional cultural load. First, we conducted manipulation checks for the three different scenarios to ensure that people valued different dimensions of product value across scenarios. A 3 (scenario: functional vs. emotional vs. social) × 3 (perceived value: functional vs. emotional vs. social) repeated measures ANOVA showed (see [Figure 5: see original paper]) that in the social scenario, people's pursuit of social value was significantly higher than in the other two scenarios (M_{social} = 7.05 ± 0.16, M_{emotional} = 1.60 ± 1.54, M_{functional} = 1.76 ± 1.85; F(2, 222) = 307.22, p < 0.001, ^{2} = 0.80). In the functional scenario, perceived functional value was significantly higher than in the emotional and social scenarios (M_{functional} = 7.88 ± 2.03, M_{emotional} = 6.69 ± 2.08, M_{social} = 6.31 ± 2.01; F(2, 222) = 23.85, p < 0.001, ^{2} = 0.18). In the emotional scenario, perceived emotional value was significantly higher than in the functional scenario and comparable to the social scenario (M_{emotional} = 4.93 ± 2.66, M_{functional} = 2.99 ± 2.17, M_{social} = 5.04 ± 2.53; F(2, 222) = 39.46, p < 0.001, ^{2} = 0.26). After controlling for people's different value needs in each scenario (including functional, emotional, and social needs), we conducted partial correlation analyses on scenario-based product choice preferences, brand status, and perceived social value. Results showed that only in the social scenario did product choice significantly correlate with brand status (r_{Timely} = 0.39, p < 0.001; r_{Fast} = –0.40, p < 0.001) and perceived social value (r_{Timely} = 0.33, p = 0.001; r_{Fast} = –0.40, p < 0.001). In the functional and emotional scenarios, product choice was not significantly related to brand status (ps > 0.05) or perceived social value (ps > 0.06).

In the scenario design, since the functional and emotional scenarios were both

single-person scenarios while the social scenario was a multi-person social scenario, and participants' perceived value ratings for tissue use in the functional and emotional scenarios showed no significant differences, we combined the two scenarios into a single-person scenario. We then conducted paired samples t-tests on tissue choices in social versus single-person scenarios. Results showed that compared to the single-person scenario (M = 6.43 ± 2.53), participants significantly preferred using high traditional cultural load tissue in the social scenario (M = 5.03 ± 1.87, t(111) = –6.31, p < 0.001, Cohen's d = 0.63).

[Figure 6: see original paper]

Finally, Experiment 4a used a within-subjects design and employed SPSS Memore plugin Model 1 to test the mediating role of perceived social value (Montoya & Hayes, 2017). Results (see [Figure 6: see original paper]) showed that product perceived social value significantly mediated the effect of traditional cultural load on brand status perception (indirect effect: B = 0.95, SE = 0.15, 95% CI = [–1.23, –0.65]).

Experiment 4a, through a within-subjects offline experimental design, again demonstrated the robustness of the empowering effect of product traditional cultural load on its brand status. People have higher evaluations of products with high traditional cultural load and assign them higher brand status. Moreover, Experiment 4a used a series of scenario designs emphasizing different product value attributes to associate brand choice with product social value. In multi-person social value scenarios, people were more inclined to use products with high traditional cultural load, again validating the social value attribute of high traditional cultural load.

5.2 Experiment 4b

Among the 112 participants in Experiment 4a, 49 right-handed participants (mean age = 23.80 ± 2.87 years, mean monthly expenditure = 2,440.00 ± 1,314.29 RMB; 35 females, 70%) were informed about and voluntarily participated in the brain imaging experiment. Therefore, we also measured brain activity throughout the entire Experiment 4a procedure for these 49 participants. Both Experiment 4a and 4b were approved by the Ethics Committee of Zhejiang University School of Management.

Since traditional cultural load can convey higher social value, we identified the temporoparietal junction (TPJ), orbitofrontal cortex (OFC), and prefrontal cortex (PFC) as regions of interest. Previous research has shown that when people engage in social tasks, inferring, understanding, and processing others' beliefs and intentions, the temporoparietal junction shows significant activation (Carter & Huettel, 2013; Luo et al., 2017). The prefrontal cortex is more involved in self-cognitive processing (Sui et al., 2007), showing greater activation when people think more about self-related concepts. The orbitofrontal cortex is a reward brain region, and its activation level can reflect the subjective value of rewards (Levy & Glimcher, 2012). Based on these cognitive neuroscience find-

ings and the behavioral results from previous experiments, we hypothesized that compared to low traditional cultural load products, high traditional cultural load products would activate the temporoparietal junction and orbitofrontal cortex to a greater degree, providing higher social value. Correspondingly, when making product choices in social scenarios, participants' temporoparietal junction activation levels would also be significantly higher than in individual scenarios (functional and emotional scenarios).

5.2.1 fNIRS Data Acquisition and Analysis We used a multi-channel fNIRS device (SHIMADZU, Japan) to measure participants' brain activity during the task, with a signal sampling rate of 13Hz. We placed 4 emitters and 4 detectors on each participant's left and right temporoparietal junctions, and 4 emitters and 4 detectors in the orbitofrontal cortex and prefrontal cortex regions. The distance between each emitter-detector pair was approximately 3.2cm (ranging from 2.8cm to 3.6cm). The emitters and detectors in the orbitofrontal cortex and prefrontal cortex formed 10 channels (channels 1–10), while the left and right temporoparietal junctions each had 4 channels (left TPJ: channels 11–14; right TPJ: channels 17–20). By measuring and calculating the MNI coordinates of each channel using a three-dimensional digitizer, we confirmed that the fNIRS channel positions could effectively cover the regions of interest. Detailed channel distribution is shown in [Figure 7: see original paper], and detailed spatial localization information for each channel is provided in Appendix H. Channels 1–7 covered the prefrontal cortex region, and channels 8–10 covered the orbitofrontal cortex.

[Figure 7: see original paper]

We used MATLAB R2021b (MathWorks, Natick, MA, USA) with the NIRS_{KIT} analysis software (Hou et al., 2021) to preprocess the raw data, including drift correction, artifact correction (TDDR method), and filtering (0.01–0.08Hz, IIR method).

We used the last 10 seconds of stable data from the rest period before the experiment as a baseline to perform baseline correction and z-score transformation on the fNIRS data. We focused on changes in oxygenated hemoglobin concentration. When analyzing activation levels, we averaged the data from all channels corresponding to each region of interest and conducted paired samples t-tests according to comparison requirements to examine differences in brain activation when participants evaluated different products (multiple comparisons were corrected using FDR).

5.2.2 fNIRS Data Results Focusing first on the brand status evaluation phase, paired samples t-test results (see [Figure 8: see original paper]) showed that compared to low traditional cultural load, evaluating high traditional cultural load products elicited higher activation levels in the temporoparietal junction (LTPJ: $t(48) = 2.17$, $p = 0.035$; RTPJ: $t(48) = 3.53$, $p = 0.001$).

[Figure 8: see original paper]

Subsequently, we used repeated measures ANOVA to examine brain activity differences during product choice across different scenarios. Results found no significant differences in activation levels across the three brain regions between the individual functional and emotional scenarios (ps $>$ 0.10). Therefore, following Experiment 4a, we combined these two scenarios into a single-person scenario and compared brain activation between single-person and social scenarios. Paired samples t-tests revealed significant brain activation differences in the left temporoparietal junction ($t(48) = 2.70$, $p = 0.009$) and orbitofrontal cortex ($t(48) = 2.66$, $p = 0.011$). Compared to the single-person scenario, the social scenario significantly increased activation levels in the left temporoparietal junction and orbitofrontal cortex.

Experiment 4b found that when evaluating high traditional cultural load products, participants showed significantly higher activation levels in bilateral temporoparietal junctions compared to low traditional cultural load products. The temporoparietal junction is one of the important social cognition brain regions, and its activation indicates that participants engaged in social cognition-related cognitive processing, including inferring others' beliefs (Carter & Huettel, 2013; Luo et al., 2017). Therefore, the brain activity results in the temporoparietal junction provide cognitive neuroscience-level evidence that high traditional cultural load conveys more social information.

Similarly, when thinking about specific scenarios of product use, compared to single-person scenarios, participants' brain activity in the temporoparietal junction and orbitofrontal cortex in social scenarios confirmed that people emphasize product social value more in social scenarios. Since participants chose high traditional cultural load products more frequently in social scenarios, this also demonstrates that high traditional cultural load products provide higher social value.

6 Conclusion and Discussion

Building on existing cultural marketing research, this study examined the effect of product traditional cultural load on perceived brand status evaluations among young consumer groups. Four experiments consistently confirmed that increasing product traditional cultural load can significantly enhance brand status perception. Both behavioral and brain imaging data indicated that the empowering effect of product traditional cultural load on brand status is primarily driven by the social value conveyed by high traditional cultural load. Furthermore, we identified a boundary condition for this effect: compared to hedonic products, utilitarian products are more susceptible to the influence of product traditional cultural load. Adding traditional cultural load helps enhance utilitarian product brand status perception.

6.1 Theoretical Contributions

As material living standards gradually improve, Chinese consumers' demands for spiritual culture and self-expression are growing daily, prompting scholars to increasingly examine culture's influence on consumer psychology and behavior. However, few studies have systematically explored the impact of traditional Chinese culture on brand status and its underlying mechanisms (Chai et al., 2015; Guo et al., 2019). Although Wu's (2020) qualitative research indirectly suggested that traditional culture can help companies build non-conspicuous luxury brand status, empirical verification was still needed.

This study conceptualizes product traditional cultural load as a brand status inference cue, systematically analyzing the impact of product traditional Chinese cultural load on brand (rather than product) status perception, and reveals its mechanism from both behavioral and brain science perspectives, emphasizing the mediating role of social value. This research expands the perspective of cultural marketing research, elevating the empowering effect of cultural load from the product level to the brand level.

Meanwhile, our findings also supplement research on the relationship between social value and brand status. Existing research has primarily focused on the social value that brand status brings to consumers. However, few experiments have investigated how social value, in turn, influences consumers' evaluations of brand status. Brand status can empower consumers with social value based on the established status of the brand. However, when a brand has not yet established clear brand status or when consumers are unfamiliar with the brand's status, research on how to enhance consumers' perception of brand status has important theoretical and practical significance. This study combines behavioral science and cognitive neuroscience methods to validate the empowering effect of social value on brand status, confirming that enhancing product traditional cultural load can increase product social value, thereby effectively promoting consumers' perception of brand status.

Our conclusions also contribute to theoretical research on product types. Consistent with previous research, this study again confirms that people evaluate different product types differently, with hedonic products generally receiving higher evaluations than utilitarian products within the same category (Amatulli et al., 2019; Jones et al., 2006). This study provides an approach to compensating for this difference: adding traditional cultural load to products can reduce the perceived difference between these two product types.

Methodologically, this study uses neuromarketing methods to measure consumers' brain activity in real-time when choosing products with different traditional cultural load levels and evaluating their brand status, revealing the cognitive neural mechanisms through which traditional Chinese culture empowers brand status and providing more objective cognitive neuroscience evidence for traditional culture research.

6.2 Practical Implications

With rapidly improving manufacturing capabilities, competition among enterprises in the current Chinese market is becoming increasingly fierce. Many utilitarian product manufacturers and distributors have even fallen into intense "red ocean" competition, seriously hindering the high-quality development of the real manufacturing economy. Brand status management is a key path for brands to escape price wars. Consequently, how to enhance brand status in consumers' minds has become an important issue facing utilitarian product manufacturers and distributors. This study explores the market value of traditional culture from a cultural marketing perspective and examines the positive impact of product traditional cultural load on brand status. Specific practical implications are as follows.

First, for startup brands or when brands enter new markets, product manufacturers and distributors can appropriately integrate traditional Chinese cultural elements into marketing activities to enhance product social value, thereby achieving brand empowerment. Particularly in product promotions and advertisements, where high-diagnostic brand status cues such as price information are typically not directly indicated, consumers often form initial impressions of products and their brand status through other factors. Enhancing consumers' perception of (new) brand status by endowing products with higher traditional cultural load can provide good assistance for enterprises in building brand image.

Second, this study also found that the marketing strategy of integrating traditional cultural elements into products is more suitable for utilitarian products. Therefore, managers should adopt different design and promotional strategies for different product types. Marketing personnel for utilitarian products should grasp young consumers' social needs, consider the social scenarios in which young consumers use products, and appropriately add traditional cultural content that helps convey social value to products, thereby helping young consumers achieve image enhancement and pursue social value, consequently enhancing brand status and deepening young consumers' favorability.

6.3 Limitations and Future Research Directions

This study has several limitations. First, regarding the sample, this study's sample size is relatively small and insufficient to explore individual differences. Future research with larger sample sizes is needed to examine perceptual and behavioral differences among consumers with different characteristics. Additionally, whether recruited through online platforms or offline experiments, the mean age results show that participants were primarily concentrated in the young age group. The investigation of special age groups such as the elderly is insufficient, and whether the conclusions apply to other age groups remains to be verified in future research.

Second, traditional culture is a complex whole that inevitably contains both

excellent content and dross (Zhuang, 1997). This study has not explored how different valences of traditional culture affect consumer cognition, which is an important direction for future research. In addition, the hierarchical relationships inherent in traditional culture may also influence product social value. For instance, in traditional Chinese culture, there is both court culture and folk culture. This study has only examined general types of traditional culture and lacks analysis of the influence of cultural hierarchy within traditional culture. Similarly, consumers of different socioeconomic statuses may have different perceptions of the same type of traditional cultural elements. Future research needs to specifically discuss the effects of different levels of traditional culture on product traditional cultural load, social value, and brand status, as well as the role of consumer socioeconomic status.

On the other hand, the premise that traditional cultural load empowers brand status through enhancing social value is that consumers identify with and prefer the traditional culture, hoping to convey its related values to the outside world. Therefore, consumers' cultural preferences and cultural identity may influence the empowering effect of traditional culture on brand status. This is also what we believe distinguishes traditional culture from modern and foreign cultures as a unique reason for empowering brand status. Existing research has not systematically explored this, and substantial experimental evidence is still needed. Future research should systematically and thoroughly consider the influence of cultural identity and cultural preferences. Overall, in future research, we will more comprehensively explore the special attributes of traditional culture, including cultural valence and cultural hierarchy, as well as consumers' cognition of and preferences for traditional culture.

Finally, regarding experimental materials, this study selected daily necessities. However, there is another important category of products in the market—modern innovative technology products, such as smart home devices. These utilitarian products provide not only functional value but also emotional value such as novelty and technological sophistication. Whether the empowering effect of traditional culture on brand status discovered in this study also affects consumers' perception and evaluation of such products remains to be examined in future research.

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Appendix A. Experiment 1 Materials

Low traditional cultural load group: "Compared to trees, reeds have a short growth cycle, high growth density, and strong regenerative capacity, making them an environmentally friendly papermaking raw material. 'Fast-Growing Reed Paper' uses reed pulp as raw material, requiring no tree cutting, no bleaching, and no water pollution, making it a healthy and environmentally friendly green household paper."

High traditional cultural load group: "In *Mencius · King Hui of Liang I*, it is written, 'If axes and bills enter the mountains and forests at the proper time, the timber will be inexhaustible,' advocating for the sustainable development of ecological environmental protection. Mencius's cultural philosophy of 'timely nurturing' has been passed down in China for millennia. 'Timely Nurturing Reed Paper' uses reed pulp as raw material, requiring no tree cutting, no bleaching, and no water pollution, making it a healthy and environmentally friendly green household paper."

Appendix B. Experiment 2 Materials

[FIGURE:A1] High traditional culture utilitarian product group
[FIGURE:A2] High traditional culture hedonic product group
[FIGURE:A3] Low traditional culture utilitarian product group
[FIGURE:A4] Low traditional culture hedonic product group

Appendix C. Experiment 3a Materials

Modern culture group: The shape of this water cup is inspired by champion gold trophies, adopting a fully symmetrical design language. The fully curved

cup body with bilateral ears extending downward from the cup rim satisfies functional water cup requirements while displaying aesthetic beauty. The curved details of the handle meet ergonomic requirements for fingers. Its overall shape achieves a relative balance between formal and functional requirements.

Low traditional cultural load group: The shape of this water cup is inspired by two-handed grip design, adopting a fully symmetrical design language. The fully curved cup body with bilateral ears extending downward from the cup rim satisfies functional water cup requirements while displaying aesthetic beauty. The curved details of the handle meet ergonomic requirements for fingers. Its overall shape achieves relative unity between formal and functional requirements.

High traditional cultural load group: The shape of this water cup is inspired by ancient Chinese wine vessels—winged cups, adopting a fully symmetrical design language. The fully curved cup body with bilateral ears extending downward from the cup rim satisfies functional water cup requirements while displaying aesthetic beauty. The curved details of the handle meet ergonomic requirements for fingers. Its overall shape achieves relative unity between formal and functional requirements.

Appendix D. Experiment 3b Materials

[FIGURE:B1] High Western traditional cultural load group: Oil Painting Cedar
[FIGURE:B2] Low traditional cultural load control group: Summer Ginkgo
[FIGURE:B3] High Chinese traditional cultural load group: Ink Wash Guest-Greeting Pine

Appendix E. Experiment 4 Scenario Design

Scenario 1 (Single-person functional value scenario): Today you are alone in your dormitory, eating at your desk. You accidentally spill some soup on yourself. You need tissue to clean yourself. Now you have both "Timely Nurturing" and "Fast-Growing" tissues on your desk…

Scenario 2 (Single-person emotional value scenario): Today you are alone in your dormitory, studying for exams. After a day of studying, you feel quite stressed. After wolfing down your takeout, you've worked up a sweat. Now you want to relax and wipe off the sweat. You have both "Timely Nurturing" and "Fast-Growing" tissues beside you…

Scenario 3 (Multi-person social value scenario): Today you are on a spring outing picnic with friends. After eating and drinking, you discover that no one else has tissue, only you have tissue in your bag, and you want to share it with everyone. Now you have both "Timely Nurturing" and "Fast-Growing" tissues in your bag…

Appendix F. Brand Status Measure

In your opinion, which level of market is this brand suitable for developing in? (1 = absolutely suitable for top high-end market development, 7 = absolutely suitable for low-end market development)

Appendix G. Perceived Social Value Scale

Table B. Perceived Social Value Measurement Scale

1 Very Disagree	2 Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat Agree	6 Agree	7 Completely Agree
Helps me gain recognition from others						
Enhances others' opinions of me						
Leaves a good impression on others						

Appendix H. fNIRS Channel MNI Coordinates and Brain Region Coverage Information

Table C. MNI Coordinates and Brain Region Coverage for fNIRS Measurement Channels

Channel	MNI Coordinates*	Anatomical Brain Region Label
1-7	[Coordinates]	10- Frontopolar area
8-10	[Coordinates]	11- Orbitofrontal area
11-14	[Coordinates]	40- Supramarginal gyrus (Left TPJ)
17-20	[Coordinates]	40- Supramarginal gyrus (Right TPJ)

*MNI coordinates are provided in Appendix H.

Note: Figure translations are in progress. See original paper for figures.