MY EYES FOLLOW MY NEEDS: ATTENTIONAL BIASES TOWARDS PRODUCT LABELS WITHIN HIGH-AND LOW-SOCIAL-STATUS GROUPS

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The relationship between social status and consumption behavior has consistently drawn attention in consumption research. Previous studies have explored the relationship between social status and consumer behavior from behavioral perspective. However, less study has explored this relationship from the viewpoint of the cognitive process to date. Therefore, two experiments were performed to explore whether high- or low-social-status affects the cognitive process of consumption. We sorted products to be labeled as hedonic or utilitarian products based on spiritual needs and utilitarian needs, respectively. Study 1 demonstrates that, within low-social-status groups, attention is biased toward hedonic over utilitarian products, whereas, for high-social-status groups, this difference does not occur. Study 2 provides evidence that there is no difference in the attention bias between the two kinds of product under the condition of a non-status start-up. The results suggest that within high- and low-social-status groups, early cognitive processing is tuned toward different attributive products, which then influences consumer behavior. This study explored the relationship between social status and consumption behavior from the cognitive process perspective, which will help in further revealing the relationship between human needs and social status from an evolutionary perspective.

Key words: social status, cognition, utilitarian, hedonism, evolutionary

INTRODUCTION

Imagine the following situation: You and your boss go shopping to buy the same type of product (such as a wallet); the individual style of your choices may be very different. What caused the two of you to have very different preferences for the same type of product? The effect of social status on personal consumption preferences is a crucial issue in life. The current study aimed to investigate how social status affects personal consumption from a cognitive process perspective based on a dot-probe task.

“Social status” refers to rank or position and reflects a hierarchical order within a
group (Dawson & Cavell, 1987). As a group-living species, the human pursuit of social status has evolved with evolution. In primitive society, high social status can bring more resources and good mates. In modern society, high status can bring more respect, treasure, and greater interpersonal influence (Marmot, 2004). So, social status is an important need that can influence people’s behaviors and decisions (Griskevicius et al., 2009; Krasny, 2013; Mattan et al., 2017).

The relationship between social status and needs has been discussed from an evolutionary perspective. In the early stages, Maslow’s (1943) hierarchy of needs showed that people’s needs are divided into physiology, safety, belonging and love, respect, and self-realization, from a low to high level. Moreover, many studies have indicated that Maslow’s hierarchy reflects the needs of different social statuses; respect is a very common need for high social status (Henrich & Gil-White, 2001). Kenrick et al. (2010) adjusted Maslow’s hierarchy according to social development and proposed the Fundamental Motives Framework. They argued that social status is a significant need and summarized different needs as evading physical harm, avoiding disease, making friends, attaining status, acquiring a mate, keeping that mate, and caring for family. These theories show that human needs are transitioning from utilitarian to spiritual needs. Satisfying utilitarian needs enables everyday practical life, such as physiology, safety, and other external satisfaction. Spiritual needs make people reside in this world meaningfully, and these needs include respect, belonging, love, and other internal satisfaction. Different levels have different needs, but each level pays more attention to their missing needs.

Human behavior is affected by needs and motivations (Kenrick et al., 2009; Neuberg et al., 2011; Oostdam et al., 2019). However, the relationship between social status and need is more specific in consumption behavior. Given the relationship between social status and consumption behavior, Eastman et al. (1999) defined the concept of status consumption as “the motivational process by which individuals strive to improve their social standing through status consumption of consumer products that confer or symbolize status for both the individual and surrounding others.” One study found that women’s status consumption motivation was significantly higher than men’s (O’Cass & McEwen, 2004). It is likely that individuals’ status consumption behaviors are stronger when they are in a public environment or accompanied by the opposite sex (Han et al., 2008; Vigneron & Johnson, 2004). Status consumption also differs culturally (East/West; Shuler & McCord, 2010). Consumers from different birth years exhibit different status consumption behaviors. Comparative studies were conducted on the status consumption behaviors of baby boomers (1946–1964), generation X (1965–1976), and generation Y (1977–1987). It was found that generation Y individuals have the highest level of status consumption due to the development of the economy and society (Eastman & Liu, 2012). Previous studies explored the relationship between social status and consumer behavior from a behavioral perspective. However, less study has explored this relationship from the cognitive process perspective. Thus, using dot-probe task, this study aimed to investigate whether high or low social status affects the cognitive process of consumption, this new research perspective will help us further explore the underlying causes behind
differences in human behavior.

Before we explore this relationship between social status and consumer behavior from the cognitive process perspective, we need to understand the cognitive process of consumption. Human cognition is affected by needs and motivations (Kenrick et al., 2009; Neuberg et al., 2011; Sandra & Otto, 2018). Research has shown that different needs may be sensitive to different contextual cues, and the sensitivity of different contextual cues can be reflected in the process of cognitive processing (Crusius & Lange, 2014). The current needs will determine the order of individual information processing. Thus, different individuals’ needs can affect their early cognitive attention bias. In a specific performance, the more stimulus and individual needs are related, the more attention and cognition resources are consumed (Friesen & Kingstone, 1998; Frischen et al., 2007; Minton, 2018; Shepherd, 2010). Consumption is a typical behavior driven by needs, so the difference in consumer behavior is also reflected in attention bias toward different products. Fundamental needs can influence the processing of environmental cues (Gangestad & Thornhill, 2008). For example, during ovulation, the reproductive need of women is more intense, which leads women to want to attract more potential partners (Anderson et al., 2010), so they buy clothes that are brightly colored and sexy (Durante et al., 2008). Thus, reproductive needs influence women to prioritize clothes, which is benefit to attracting the opposite sex. Needs have an important influence on the cognitive process of consumption, which affects the order of cognitive processing and attention bias. Based on this, we can further investigate whether social status, which as an important need, also affects the cognitive process of consumption.

Previous studies explored the relationship between social status and consumer behavior from a behavioral perspective and found that different social status groups have different preferences. For example, it was found that, due to their lack of social status, low-status groups favor status products. On the contrary, as high-status groups have obtained social status, they not only notice brands and status signals when purchasing products, but also, product function and quality (Rucker & Galinsky, 2009; Rucker et al., 2012; Wilcox et al., 2009). This means that low-status groups focus only on their spiritual needs, including the abstract value inherent in the product and its inner self-satisfaction. However, high-status groups focus on their utilitarian and spiritual needs, including the abstract value and objective use value inherent in products. Previous studies have divided the needs attributes of these two products into hedonic and utilitarian consumption. Utilitarian consumption emphasize the objective and tangible attributes of a product, such as the durability of a pair of jeans. Hedonic consumption emphasize the subjective and intangible attributes, including “the multisensory, fantasy, and emotional aspects of consumers’ interactions with products,” such as jeans that make the body appear sexually attractive. A product might meet the needs of both at the same time, for example, a woman might not only buy a coat because it exhibits an image of luxury but, also, it helps her keep warm in the winter (Madichie, 2009). Consumer behavior that meets an individual’s spiritual needs is a form of hedonic consumption, which emphasizes meeting one’s need to obtain fantasy, feeling, and entertainment. Utilitarian consumption focuses on essential functions and objective use value (Chen et
Therefore, we speculated that high- and low-social-status consumers would have different attention biases for products that meet different needs (utilitarian/spiritual). Specifically, we divided product attributes into hedonic and utilitarian attributes based on the concepts of hedonic and utilitarian consumption. We assumed that biased attention is more inclined toward hedonic products (that meet spiritual needs) than utilitarian ones (that meet utilitarian needs) within low social status groups, whereas, in high social status groups, this difference would not be present. This hypothesis is based on previous studies: Bhattacharya (2012) found that people in high/low-social-status groups tend to buy luxury products, but their intensity is different. Specifically, a low-social-status group’s willingness to buy luxury products is stronger than a high-status group.

Also, the motivations of different social status groups are different; luxury products have both hedonic and utilitarian value for high-social-status groups, so they do not have attention bias toward different products. However, for low-social-status groups, because they compensate for their lack of social status, they may focus only on the hedonic attributes of products. Therefore, within low-social-status groups, their biased attention is more inclined toward hedonic products (that meet spiritual needs) than utilitarian ones (that meet utilitarian needs).

Based on these assumptions, this study uses a dot-probe task to investigate whether high- or low-social-status affects the cognitive process of consumption. A dot probe task tests whether individuals can quickly separate their visual attention from a stimulus that they are currently focusing on to find a stimulus located elsewhere in the visual field (Macleod & Mathews, 1988). This paradigm has been widely used to explore the problem of attention bias in the process of individual cognitive processing (Brosch & van Bavel, 2012; Crusius & Lange, 2014; Sacco et al., 2016; Vogt et al., 2011, 2013). Two experiments were performed to confirm our hypothesis. Since a product often contains both hedonic and utilitarian attributes, it is difficult to separate the two attributes from the product. Therefore, in Study 1, we sorted the products into hedonic and utilitarian products. We then used a story scenario to prime high- and low-social-status groups (Griskevicius et al., 2010; Hill et al., 2012) to explore whether the results were consistent with our hypothesis in an experimental operating situation. Furthermore, it is necessary to consider whether attention bias can be attributed to the difference of material in Study 1. Therefore, Study 2 was conducted under the condition of no social status priming. If there is no attention bias between hedonic and utilitarian labels, we can conclude that the difference in attention bias between two labels in Study 1 should be attributed to the priming effect of low and high social status.

**Study 1**

No previous studies classified products by their utilitarian or hedonic attributes. Therefore, in Study 1, we used text labels to distinguish the two kinds of product
(utilitarian/hedonic) and explored whether it is feasible to reveal the classification of products as utilitarian or spiritual via a subjective evaluation method. On this basis, we further explored whether a high or low level of social status affected the cognitive process of consumption, using a dot-probe task to confirm our hypothesis.

In Study 1, we hypothesized that there are differences attentional bias of different products labels between high- and low-social-status: Low-status participants have attentional bias toward the labeling of hedonic products, while high-status participants paid equal attention to hedonic and utilitarian labels.

**Method**

**Participants and Design**

This study was conducted by using a mixed experimental design of 2 social statuses (high status vs. low status; between-subject) × 2 trial types (dot and hedonic labels in the same position vs. dot and utilitarian labels in the same position; within-subject). A total of 85 students took part in our experiment: 43 females and 42 males (mean age = 19.90 years, SD = 2.68). Referring to previous studies (Crusius & Lange, 2014; Tabachnick & Fidell, 2007), we excluded trials that included error responses or where the reaction time was under 200 ms, and trials with a standard deviation that was not within ± 3.29. We eliminated 2.69% of the trials. Furthermore, trials where the mentioned above responses cumulatively exceeded 20% (n = 5) were eliminated. The final sample size was 80, including 41 high-status people (21 females and 20 males; M = 5.63, SD = 0.80) and 39 low-status people (19 females and 20 males; M = 1.97, SD = 0.87). Before testing, each participant signed an informed consent form. The Ethics Committee of Hunan Normal University approved this study.

**Materials and Procedure**

*Product attribute division.* Since a product often contains both hedonic and utilitarian attributes; it is difficult to separate the two attributes from the product. Therefore, in this study, we examined whether text labels could separate the two product attributes by using a self-developed consumer questionnaire. First, to control the differences in product type and gender, we chose 20 daily products from life, such as vacuum cup, jeans, sunglasses, pen, shoulder bag, etc. Then, each product was provided with a utilitarian (emphasis on meeting utilitarian needs such as warmth, durability, etc.) or hedonic label (emphasis on meeting spiritual needs such as fashion, uniqueness, etc.). All labels were selected from common advertising labels, and we controlled the length of each label (limited to four Chinese characters). Finally, the participants were asked to select the direction of each label:

“There are 20 products below, each product has two kinds of advertising label. Please select the direction of each label: If you think that the label indicates the product helps to meet the spiritual needs of the owner, please choose the ‘Hedonic’ option; if the label indicates that the product helps to meet the utilitarian needs of the owner, please choose the ‘Utilitarian’ option; if you think that neither is compatible,

| Table 1. Participants Made Their Choices Based on the Contents of the Label |
|-----------------------------|-----------------------------|-----------------------------|
| **Product’s Name and Label** | **Label Pointing**           |
| Bag: Fashion Trend          | A Hedonic                   | B Utilitarian               | C Other |
| Bag: Anti-theft and Reduction| A Hedonic                   | B Utilitarian               | C Other |
| Vacuum Cup: Custom Tailored | A Hedonic                   | B Utilitarian               | C Other |
| Vacuum Cup: Lasting Insulation| A Hedonic                  | B Utilitarian               | C Other |
Table 2. Mean of Participants’ Selection Results for Each Category of Label

| Category of Label | Hedonic | Utilitarian | Others |
|-------------------|---------|-------------|--------|
| All labels        | 18.36   | 19.477      | 2.15   |
| Label Pointing to Hedonic | 16.85 | 1.48 | 1.67 |
| Label Pointing to Utilitarian | 1.18 | 18.00 | 0.82 |

Table 3. Memory Task: The Participants Were Asked to Reclassify the 40 Text Labels in Three Minutes

| Class A: Hedonic                  | Class B: Utilitarian                   |
|-----------------------------------|----------------------------------------|
| Fashion Trend                     | Anti-theft and Reduction               |
| Custom-tailor                     | Lasting Insulation                     |
| Avant-garde Personality           | Light Shading                          |
| High-end Customization            | Writing Fluently                       |
| Temperamental Cultivation         | Crease-resist and Warm                 |
| Gorgeous and Avant-garde          | Ultra-thin and Anti-fall               |
| Luxury and Fashion                | Shockproof and Waterproof              |
| In the Same Style as Stars        | Warm and Easy to Wash                  |
| Creative Modeling                 | Lead-Free and Environmental            |
| Opulence and Grandeur             | Energy-saving and Emission-reduction   |
| Popular and Fit                   | Thicker and Warm                       |
| Personality Customization         | Waterproof and Dilatation              |
| Fashion and Luxury                | Wear-resistant and Folding             |
| High-end and Vintage              | Wear-resistant and Warm                |
| Fashion and Tide Brand            | Prevent Cold and Keep Warm             |
| Luxury                            | Wear-resistance                        |
| Fashion and Extravagance          | Comfortable and Ventilation            |
| Exquisite and Special             | Waterproof and Wind-resistant          |
| Fashion and Luxurious             | Thicker and Anti-wrinkle               |
| Limited Collection                | Anti-fall and Waterproofing            |

please choose ‘Others’” (see Table 1).

A total of 109 questionnaires were distributed to 82 females and 27 males (mean age = 23.90, range: 18–48, SD = 5.64). The analysis showed a significant difference for all labels, χ²(2, N = 109) = 48.851, P < .01. There was a significant difference in the choice of the hedonic label, χ²(2, N = 109) = 23.335, P < .01, and there was a significant difference in the choice of the utilitarian label, χ²(2, N = 109) = 28.910, P < .01 (see Table 2).
The results showed that a text label could distinguish the two kinds of product, and it was possible to reveal the classification of products as utilitarian or spiritual using a subjective evaluation method.

Memory task. We tested for subthreshold response differences in the participants with a dot-probe task paradigm. The presentation time of the stimulus was very short; therefore, to ensure that the
participants could react accurately to the task—before we experimented with social status conditions—we conducted a memory task to activate their cognition of the differences between the two product types. First, participants were given memory materials that listed 20 text labels for each attribute (hedonic/utilitarian; the materials were the same as in the product attribute division section, but each category had only a text label without a product name), and memory materials description content such as: “According to market research, different product labels are summarized and classified into two categories: Class A refers to hedonic product attribution (describing attractiveness); Class B describes utilitarian products. Please remember the category of different labels.” Participants were then given three minutes to remember the different text labels (we had proved that individuals could accurately distinguish the utilitarian and hedonic attribute text labels in a natural state, and this task was only intended to activate the participants’ related cognition). When the time expired, the materials were recovered, and the participants were asked to reclassify the 40 text labels (see Table 3) according to their memory. After completing the memory task, participants were randomly assigned to one of two prime conditions (high-status group vs. low-status group). Finally, they finished the dot-probe task on a computer.

**Status prime.** Previous studies have explored social status from two aspects: First, social status was divided according to objective and subjective social factors, such as economic status (Sobal & Stunkard, 1989), peer comparison (Dodge, 1983), and so on. Second, situational materials were used to prime high- or low-social-status groups (Griskevicius et al., 2010; Hill et al., 2012). Materials were divided among high-and low-social-status by economic status, educational level, peer comparison, and other factors. Considering previous studies, this study used situational priming to activate the status perception of subjects.

In this study, the high-status group read a short story intended to elicit high-status motives. In the story, the participants imagined graduating from college, looking for a job, and deciding to go to work for a large company because it offered the greatest chance of promotion. The work environment, welfare system, and salary were all excellent. Also, with the income increase, he/she gradually entered the ranks of the upper class. In the low-status group, the story was the opposite; their work opportunities, treatment, living environment, friends, and financial status were all contrary to those described in the high-status story. After reading the story, the participants were asked to answer the following question: “Imagine you are the protagonist in the story, do you feel that you have status at the moment?” Responses were recorded on a 7-point scale ranging from 1 (very low status) to 7 (very high status).

**Dot-probe task.** The dot-probe task consisted of 46 trials (six were practice trials). Each trial had a 2 (hedonic label left/utilitarian label right vs. utilitarian label left/hedonic label right) × 2 (target dot left vs. target dot right) design. Within each block, the trials were presented randomly. Each trial started with a fixation cross that was displayed for a determined interval of 1000 ms to prevent practicing the time course of the trials. To ensure that the priming effect of the status condition would persist during the whole task, in each experimental trial a set of high/low-status words were displayed for 800 ms in black Arial font, size 22, against a white background at a visual angle of approximately 7° at the center of the screen’s midpoint. High-status words appeared to the high-status group, such as “well paid” and “pursue grade;” while low-status words appeared to the low-status group, such as “suffer privations” and “keep busy living.” Each group of words was the same. Following these projections, the hedonic and utilitarian labels were simultaneously displayed for 250 ms in black Arial font, size 22, against a white background at a visual angle of approximately 7° at either the left or right of the screen’s midpoint. If the hedonic label appeared on the left side, the utilitarian label appeared on the right side, and vice versa. Immediately after the presentation of the labels, a small, black star dot was displayed on the right or left side of the screen, replacing one of the cue words. The dot remained on the screen until the participants responded (see Fig. 1).

**RESULTS AND DISCUSSION**

**Prime**

Extensive pilot testing of this manipulation (Griskevicius et al., 2010; Hill et al., 2012) showed that, relative to the low-social-status story, the high-social-status story elicited a “feeling of having social status” (5.62 vs. 1.98 on a 1–7 scale, t(78) = 18.56, P
<.001).

**Dot-Probe Task**

During the data analysis stage, referring to previous studies (Crusius & Lange, 2014; Tabachnick & Fidell, 2007), we excluded trials that included error responses or where reaction time was under 200 ms and trials with a standard deviation that was not within ± 3.29. We eliminated 2.69% of the trials. Furthermore, trials where the abovementioned responses cumulatively exceeded 20% (n = 5) were eliminated. The final sample size was 80.

We analyzed the average reaction time for high-social status and low-social status, using multivariate analysis of variance (MANOVA) analysis with social status as the independent variable and reaction time as the dependent variable. We found that the main effect of status condition (high vs. low) was not significant (F(1,77) = 0.07, p = .79, η^2_υ = .001); and there were significant differences between different trial types (t(79) = -2.80, p < .01). The interaction between status and trial type was also significant (F(1, 77) = 4.92, p < .05, η^2_υ = .06). However, it was found that only under the condition of a low-social-status did participants respond faster in the trial where dot and hedonic labels were in the same position (M = 368.46, SD = 42.11), compared with the trial where dot and utilitarian labels were in the same position (M = 377.19, SD = 45.04; F(1,77) = 12.97, p < .01, η^2_υ = .14). Under the condition of a high-status, whether the trial of dot and hedonic labels were in the same position (M = 377.41, SD = 46.46) or the trial of dot and utilitarian labels were in the same position (M = 378.63, SD = 50.21), there was no significant difference in reaction time (F(1,77) = 0.25, p = .61, η^2_υ = .003). To avoid a gender effect, we further analyzed the results after controlling for sex, and the results showed that the difference was not significant (F(1,77) = 1.72, p = .19, η^2_υ = .02; see Table 4).

Additionally, we calculated the deviation score of the reaction time (see Fig. 2), using the reaction time of the trial where the dot and hedonic labels were in the same position minus the trial where the dot and utilitarian labels were in the same position. Thus, the more positive the result was, the more bias there was toward the utilitarian label. The more negative the result was, the more bias there was toward the hedonic label. The results showed that the mean for attention bias was –8.74 ms (SD = 15.93) under the condition of low status, and the results of the stimulation were statistically

| Status | Trial Type                                                                 | Mean (SD)   |
|--------|---------------------------------------------------------------------------|-------------|
| High   | the trial where dot and hedonic labels were in the same position          | 377.41 (46.46) |
|        | the trial where dot and utilitarian labels were in the same position      | 378.63 (50.21) |
| Low    | the trial where dot and hedonic labels were in the same position          | 368.45 (42.11) |
|        | the trial where dot and utilitarian labels were in the same position      | 377.19 (45.04) |
significant. In contrast, under high-status conditions, the mean for attention bias was
−1.22 ms (SD = 14.49), and there was no significant difference.

The results of Study 1 showed that attention is deployed differently within high- and
low-social-status groups. Low-status participants shifted their attention more strongly
toward the hedonic rather than utilitarian labels. Conversely, high-status participants
paid equal attention to hedonic and utilitarian labels. In line with a functional account of
social status, these results indicate the different relevance of spiritual and utilitarian needs
within high and low social status groups. This result confirms our research hypothesis
and is consistent with past research results.

**STUDY 2**

In Study 1, we used the story scenario method to elicit status motives. Therefore, it
was not confirmed whether the results of Study 1 were due to the influence of the
experimental materials and whether the same attention bias was shown under the
condition of non-status start-up. Therefore, Study 2 was conducted under the condition
of no social status priming. If there is no attention bias between hedonic and utilitarian
labels, we can conclude that the difference of attention bias between the two labels in
Study 1 should be attributed to the priming effect of low and high social status.

In Study 2, we hypothesized that participants paid equal attention to hedonic and
utilitarian labels in the non-status start-up condition.
Method

Participants and Design
A total of 29 students took part in this experiment: 11 females and 18 males (mean age = 22.78, SD = 1.68). We excluded trials that included error responses or a reaction time under 200 ms, and trials with a standard deviation that was not within ±3.29 (Crusius & Lange, 2014; Tabachnick & Fidell, 2007). We eliminated 2.59% of the trials. Also, trials in which the abovementioned responses cumulatively exceeded 20% (n = 2) were eliminated. The final valid sample size was 27, and this study used a single-factor, completely random, within-subjects design. Before testing, each participant signed an informed consent form. The Ethics Committee of Hunan Normal University approved this study.

Materials and Procedure
Participants were given memory materials (as in Study 1), and after the task was complete, they were asked to position themselves in front of the computer to finish the dot probe task.

Dot-probe task. The dot-probe task consisted of 46 trials (six were practice trials). Within each block, the trials were presented randomly. Each trial started with a fixation cross that was displayed for a determined interval of 1000 ms to prevent the practice of the time course of the trials. Then, in each experimental trial, the hedonic and utilitarian labels were simultaneously displayed for 250 ms in black Arial font, size 22, against a white background at a visual angle of approximately 7° at either to the left or right of the screen’s midpoint. If the hedonic label appeared on the left side, the utilitarian label appeared on the right side, and vice versa. Immediately after the presentation of the labels, a small, black star dot was displayed on the right or left side of the screen, replacing one of the cue words. The dot remained on the screen until the participant responded.

Results and Discussion
During the data analysis stage, we excluded trials that included error responses or a reaction time under 200 ms, and trials with a standard deviation that was not within ±3.29 (Crusius & Lange, 2014; Tabachnick & Fidell, 2007). We eliminated 2.59% of the trials. Furthermore, trials in which the above-mentioned responses cumulatively exceeded 20% (n = 2) were eliminated. The final sample size was 27.

Using paired-sample t-tests, it was discovered that there was no significant difference in reaction time (t(26) = 1.17, p = .25), whether the trial where the dot and utilitarian labels were in the same position (M = 391.41, SD = 56.00) or the trial where the dot and hedonic labels were in the same position (M = 387.42, SD = 53.23). Additionally, we calculated the deviation fraction of the reaction times, and further computed bias scores by subtracting the reaction times of the trials of dot and utilitarian labels in the same position from the trials of dot and hedonic labels in the same position.

We calculated the deviation score of the reaction times. We used the trial of dot and hedonic labels in the same position minus the position where the trial of dot and utilitarian labels were in the same position. Thus, the more positive the result was, the more positive there was toward the utilitarian label, and the more negative the result was, the more bias there was toward the hedonic label. The results showed that the mean for attention bias was 3.99 ms (SD = 17.67) under the condition of a no-status prime, indicating that there was no significant difference.

According to the above results, under the condition of a no-status prime, the
participants had no attention bias toward the two attitude’s product labels. This proves that the results of Study 1 were due to the successful initiation of the participants’ perception of status. Therefore, this study not only removed the influence of the experimental materials but also verified the results of Study 2 again.

**General Discussion**

Our research explored this relationship between social status and consumer behavior from the perspective of cognitive process. Based on previous studies, we sorted the products to be labeled into hedonic and utilitarian products based on spiritual and utilitarian needs, respectively. We then conducted two experiments to demonstrate that, within low-social-status groups, biased attention is more inclined toward hedonic products than utilitarian ones, whereas, in high-social-status groups, this difference is not significance. The experimental materials did not influence this result. In this research, we demonstrated the relationship between social status and consumer behavior from an early cognitive processing viewpoint. This has been done for the first time and is of important significance to further promote the development of consumption psychology theory.

This research focused on a core problem: the relationship between social status and individual consumer behavior, and whether that relationship can be expressed from the perspective of cognition. Previous studies showed that a person’s attention biases could be affected by their needs and short-term goals (Crusius & Lange, 2014). For example, smokers tend to show attention bias toward pictures related to cigarettes (Mogg et al., 2003). Consumption is a typical behavior driven by needs, so differences in consumer behavior are also reflected in attention bias toward different products. Studies have found that attention bias is deployed differently within high- and low-social-status groups; low-social-status participants shifted their attention more strongly toward hedonic labels, which met their spiritual needs, rather than utilitarian labels, which met their utilitarian needs. In contrast, high-social-status participants paid equal attention to both types of label. This result was consistent with previous research. Previous studies have shown that low-social-status groups’ willingness to buy luxury products is stronger than high-status groups (Bhattacharya, 2012; Sivanathan & Pettit, 2010). This result can be interpreted as meaning that the high-status person already has a sense of ownership of the status, and thus the willingness to possess the status symbol item is weak, and there is no attention bias. To the opposite, because of a poor self-concept threatens low-status people, they tend to cover up and compensate for their low status by purchasing products that symbolize social status (Cohen & Sherman, 2014; Wiebenga, 2015). Therefore, in previous studies, that threat was the core reason for lower-status people favoring status products (Neuberg et al., 2011; Rucker & Galinsky, 2009; Rucker et al., 2012; Wilcox et al., 2009), and that interpretation was also applicable to our findings. In the field of consumer psychology, it has been further confirmed that high-value products are an important way to assert oneself or defend against threats to the ego (Braun & Wicklund,
1989; Ledgerwood et al., 2007; Miller & Cohen, 2001; Sivanathan et al., 2008; Wicklund & Gollwitzer, 1981).

Just as in life, although people with high social status or low social status can get happiness through hedonic consumption, the actual meaning of this consumer behavior is different. People with high social status are free to choose any kind of consumption method because they are not restricted by resources. They can even easily achieve products with both hedonic and utilitarian attributes. Therefore, the division of the two product attributes may not have special significance for them; However, for low social status, the symbolic status of the hedonic products will constantly remind that they are living in a relatively low level of life. Life has greater constraints and uncertainties and often only achieve utilitarian products, utilitarian consumption is forced to accept rather than actively choose, so they hope to break the current situation and self-ideal by having a hedonic product. A similar conclusion has been drawn from the study of over-consumption. That is to say, the important reason for individuals to make excessive consumption and luxury consumption is to buy high-value products for self-affirmation and to resist peer threats (Braun & Wicklund, 1989; Ledgerwood et al., 2007; Miller & Cohen, 2001). It can be seen that threat, as a key factor influencing individual decision-making and behavior, will also have an impact on individual consumption behavior (Cohen & Sherman, 2014; Wiebenga, 2015). Self-threat is the core factor that leads low-status people to prefer to buy products that help them spiritually improve their status.

Furthermore, we can further explain the results of this study from the perspective of evolution. It has been suggested that the evolution of human beings molded the human brain into a fear module that directs attention toward potentially threatening stimuli (Sander et al., 2005). For example, attention biases have also been shown toward high-status faces (Dalmaso & Galfano, 2014) and angry emotions (Öhman & Mineka, 2001). In this study, based on this evolved response to a threat, low-social-status people shifted their attention more strongly toward products that met their spiritual needs, fending off threats to the self.

In conclusion, this study elucidated different consumption motives related to high- and low-social-status from a cognitive perspective and revealed that their cause is that humans evolved to fight off threats to themselves. This study also demonstrated the relationship between social status and consumer behavior from an early cognitive processing viewpoint using a sub-threshold cognitive paradigm, which will be of great significance to further efforts to explore this relationship from an evolutionary perspective.

Limitations and Future Directions

First, because a product often contains both hedonic and functional attributes, it is difficult to separate the two attributes from the product. Therefore, in this study, we sorted the products to be labeled into hedonic and utilitarian products. However, we can ensure what happens to the cognitive processes of consumers in a real shopping environment when there are multiple attributes of a product.

Second, in this study, we have not controlled the influence of emotion on different social statuses. Previous research has shown that a negative emotion causes an attentional
bias towards positive items (e.g., Sanchez & Vazquez, 2014). Negative emotions often accompany low social status, therefore, in future studies, the influence of emotional factors should be further eliminated.

Third, in this study we did not test the differential needs supposedly associated with various status levels; instead, we merely investigated the relationship based on previous research. Future research can explore this.

In addition, more methods can be used in future studies to further explore the influence mechanism of social status on consumption behavior. If this influence mechanism is explained from the perspective of evolution, this cognitive difference should be reflected in the brain processing process. Therefore, it is our future direction to try to use more methods to further demonstrate and supplement the results of this study and expand the research paradigm in this field.

AUTHOR’S CONTRIBUTION

D.C. and J.Z. were responsible for the data collection, D.C. was responsible for the data analysis, Y.X., W.Q., and D.C. were responsible for the article writing, and J.Z. has proofread the article.

CONFLICT OF INTEREST

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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