

# Experimental Study on the Relatedness in Chinese between Tonal Suggestiveness and Product Attributes in the Category of Cars

## ETUDES EXPERIMENTALES SUR LA RELATION ENTRE LA SUGGESTIVITE TONALE ET LES ATTRIBUTS DU PRODUIT EN CHINOIS DANS LA CATEGORIE AUTOMOBILE

TONG Yimin<sup>1</sup>      DING Yan<sup>2</sup>

**Abstract:** This paper aims at finding whether in Chinese there is relatedness between the tones and the product attributes by an experiment on tone suggestiveness. The experiment shows that in automobile brand naming, the rising tone is the most favorable one for all types of cars, other tonal preference varies depending on the attributes of the cars as follows: the high tone is the second most favored for the safe and comfortable type; falling tone is favored for the fashionable type; the high tone and the dipping tone share almost the same preference for the environment-friendly and the luxury type; and for the powerful type, the falling tone is the second most favored.

Besides, the experiment also shows that there is a different tonal preference between the male and female subjects for the naming of safe and comfortable automobiles: male subjects favor the rising for all the types, while the females high tone for the naming of safe and comfortable automobiles.

**Key words:** tonal language, tone suggestiveness, product attributes, brand naming

**Résumé:** Cet article vise à trouver s'il existe, en chinois, une relation entre les intonations et les attributs du produit en faisant un essai sur la suggestivité tonale. Cet essai montre que dans la dénomination des marques automobiles, le ton montant est le plus favorisé pour toutes sortes de voiture, d'autres préférences tonales varient selon les attributs de voiture comme ci –dessous : le ton haut est le deuxième favori pour la gamme sûre et confortable, le ton descendant est favorisé par la gamme à la mode, le ton haut et le ton baissant bénéficie d'une préférence presque égale de la gamme environnement-amical et la gamme de luxe, et pour la gamme puissante, le ton descendant est le deuxième favori.

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<sup>1</sup> School of Foreign Languages, Dalian University of Technology, DUT, Dalian, China.  
E-mail: tym999@yahoo.com.cn

<sup>2</sup> School of Foreign Languages, Dalian University of Technology, DUT, Dalian, China.  
E-mail: lydia79772000@yahoo.com.cn

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En outre, cet essai montre aussi qu'il existe une préférence différente dans la dénomination des automobiles sûrs et confortables entre les hommes et les femmes : les hommes ont une préférence pour le ton montant pour toutes les gammes, tandis que les femmes préfèrent le ton haut pour dénommer la gamme sûre et confortable.

**Mots-Clés:** langue avec des tons, suggestivité tonale, attributs du produit, dénomination des marques

## 1. INTRODUCTION

### 1.1 Brand Naming Related with Product Attributes

Brand naming has always been a priority to a company; therefore, selecting a proper and influential brand name is one of the most important marketing decisions. This is especially true to China, when the consumer market has stepped from the product consumption to brand consumption. In such a market, developing a successful brand is crucial to the existence and competition of a company.

Adrian Room (1987) categorized famous American brand names into seven groups from the semantic aspect. One of the groups is descriptive names, such as Rambler Bicycle, Shredded Wheat. Brand names of this group reveal the attributes of the products they stand for. A brand name must be appealing and in tune with the consumer's perception of the product. (Keller, 2004)

Keller's remark may have another explanation that the brand name must reveal the attributes of the particular product. Liu Xiaoxia, in the psychology of consumers', stated that a brand name should precisely convey the basic usage and attributes of the product the brand name stands for, so that the consumers can obtain the main information concerning the product quickly and briefly. (Liu Xiaoxia&Liu Jian, 2006)

Zhu Yajun(2003) suggested one of the principles for translating brand names is that the translated brand name has to bear a direct relation to the original brand name at least in one aspect for the consumers to have a peer into the attributes of the original product.

### 1.2 Chinese Tone Suggestiveness

Chinese is a tone language, with four main tones: the high tone(ˉ), the rising tone(ˊ), the dipping (low rising) tone(ˇ)and the falling tone(ˋ).

Tone suggestiveness has not altered much since people had the tone awareness more than 1000 years ago. Monk Chu Zhong in Tang dynasty claimed in his work Yuan He Yu Pu 《元和韵谱》,that "the high tone suggests safe and quiet, the rising tone suggests lifted and sharp, the dipping tone distinctive and far, the falling tone fast and straight"; Shi Zhen Kong in Ming dynasty described tones in this way: the high tone plain and low, the rising tone fierce and powerful, the dipping tone clear and strengthening, the falling tone quick and fast; (Yu Yaoshi Gejue 玉钥匙歌诀) · Jiang Yong in Qing dynasty stated in Yin Xue Bian Wei(音学辨微) that "the high tone was prolonged and hollow, like the sound of striking a clock or a drum, the other three sounds were short and full, like the sound of knocking a wood or a stone". All these descriptions are people's intuitions to the Chinese tones, and are in line with each other. ((Liu Lili, 2004, translated by the authors)

### **1.3 Purpose**

Currently in China, linguistic studies on brand naming principles lag behind, and there are rare studies which have connected Chinese tone suggestiveness with product attributes in brand naming.

The majority of previous research in brand naming has basically two characteristics:

First, the brand naming principles are established mainly on the basis of studies conducted in western countries, and the studies are mainly conducted on products with European trademarks, that is, in European languages (Yih Hwai Leea, Kim Soon Angb, 2003). As linguistic labels, brand names should be subjected to different language systems. Prior research has shown that language differences may impact consumer information processing and affect mental representation, which in turn influence memory. Thus, the unique linguistic characteristics which govern each language may potentially moderate the generality of brand naming principles. Therefore, brand naming studies should take into consideration the linguistic differences, one of which in Chinese is that Chinese language is a tone one, and that different tones convey different suggestiveness.

Second, the previous researches focused on Chinese brand naming mainly stayed at the word level or sub-lexical level, that is, at the radical level of Chinese characteristics. Few have touched the phonetic aspect of tones, except for some pure linguistic research, which are mainly about pitch theories. Ma Ningning offered a view of linking brand naming and phonetic studies, in which two-syllable IT brand names were categorized and analyzed, with the finding that high tones (including the high tone and the rising tone) are preferred in the naming of IT products, in line with Chan and Huang' series studies, conducted on traditional products. (Ma Ningning, 2006)

The purpose of the present paper is by an experiment to find, in Chinese brand naming, whether there is relatedness between tonal suggestiveness and product attributes in the category of cars, and if there is, what they are.

## **2. METHODOLOGY**

### **2.1 Design of the Experiment and Variables Control**

#### ***Variables Control***

7 Vowels

According to the previous research that the vowels in brand names should be short and simple (Liu Xiaoxia&Liu Jian, 2006), simple vowels "a, i, e, u ing, ang, ao" are chosen to be combined with all 28 Chinese consonants.

30 combinations

30 combinations, each with all four tones in Mandarin Chinese, are selected.

30 Chinese Characters

In order to make sure that the Chinese characters in the experiment don't have much influence from the script meanings on the subjects, 30 Chinese characters with less reorganization and with little associative meanings were selected from 100 low frequency Chinese characters by a pretest where subjects were 40 college students.

### **2.2 Questionnaire**

The questionnaire has two parts:

- a. an advertisement for each of the 5 car attributes (the safe and comfortable cars, the fashionable cars,

the luxurious cars, the environmentally friendly cars, the powerful car.)

b. 30 Chinese characters, each with four combinations blank-toned, where subjects are supposed to give tone preference on each, according to the attributes described in the advertisement.

### 2.3 Subjects and Size of the Sample

200 questionnaires were sent to students in 3 colleges in Dalian, with 170 recollectd and 122 valid, among which, 35 from female subjects, and 87 from male ones.

The subjects are asked to give scores from 4 to 1 according to their preference on the 4 tones.

## 3. RESULT PRESENTATION AND DISCUSSION

The results basically show that there is relatedness between Chinese tonal suggestiveness and product attributes.

### 3.1 Results

The data collected in the experiment shows that preference on the rising tone (↗) is distinctive in all types of cars. The preference on the other 3 tones varies in different type of cars as follows:

#### 3.1.1 In Safe and Comfortable cars

In the safe and comfortable cars, high tone (↖) has the second highest value of 25.6%.

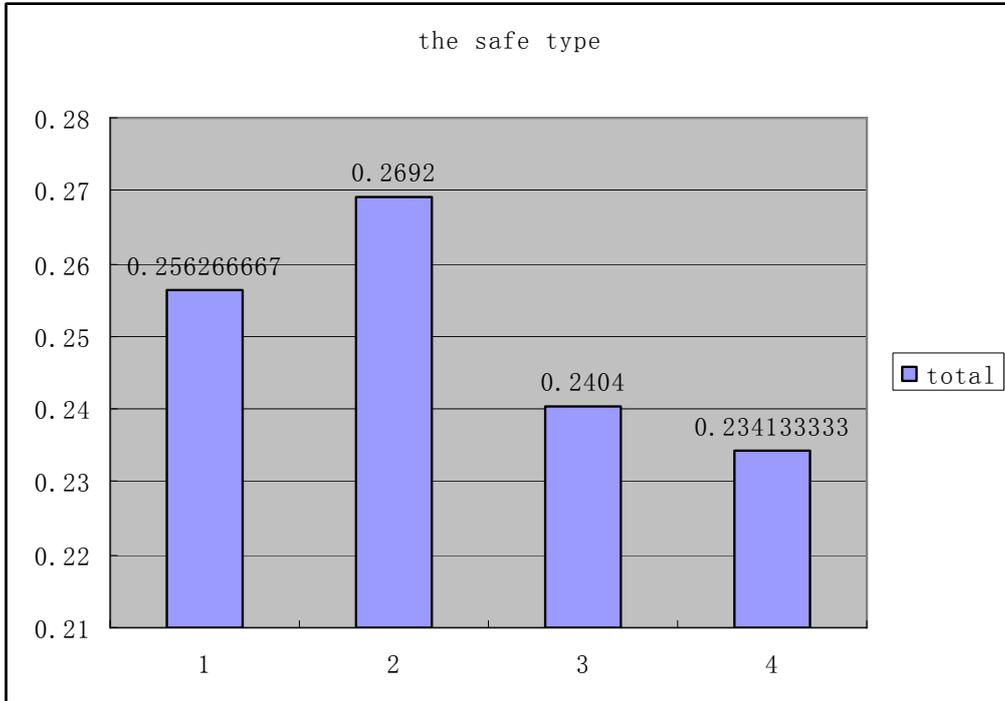


Fig.2. Tonal percentage value for the safe and comfortable automobiles

### 3.1.2 In The Fashionable Cars

The falling tone ( \ ) is preferred in the fashionable cars, next to the rising one.

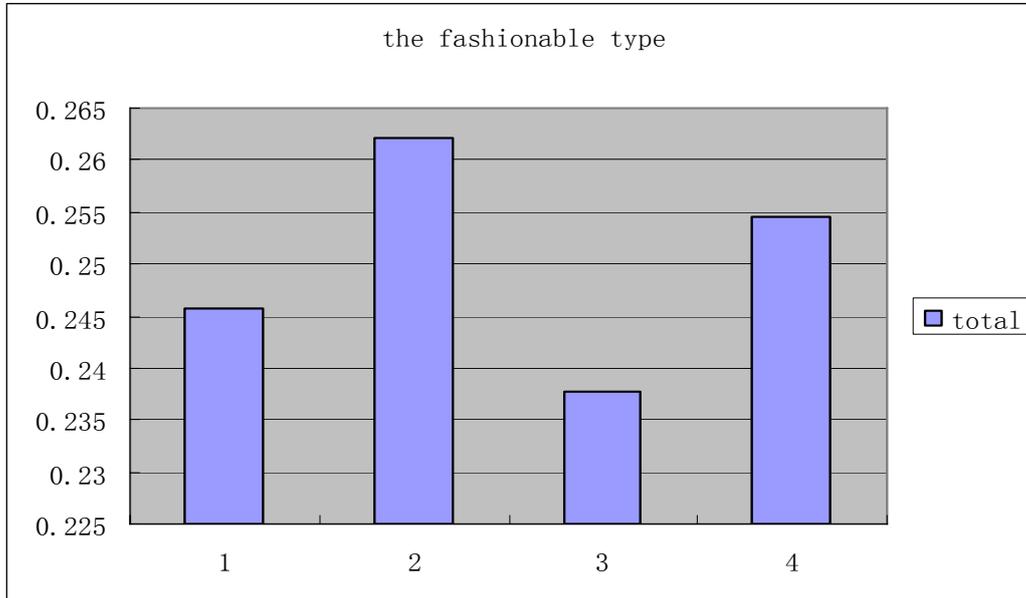


Fig.3. Tonal preference for the fashionable type

### 3.1.3 In The Luxurious Cars

For the luxurious type of automobiles, while the rising tone ( / ) again takes the dominant position, the high tone ( ¯ ) and the dipping ( \ ) , sharing almost the same value, come the second.

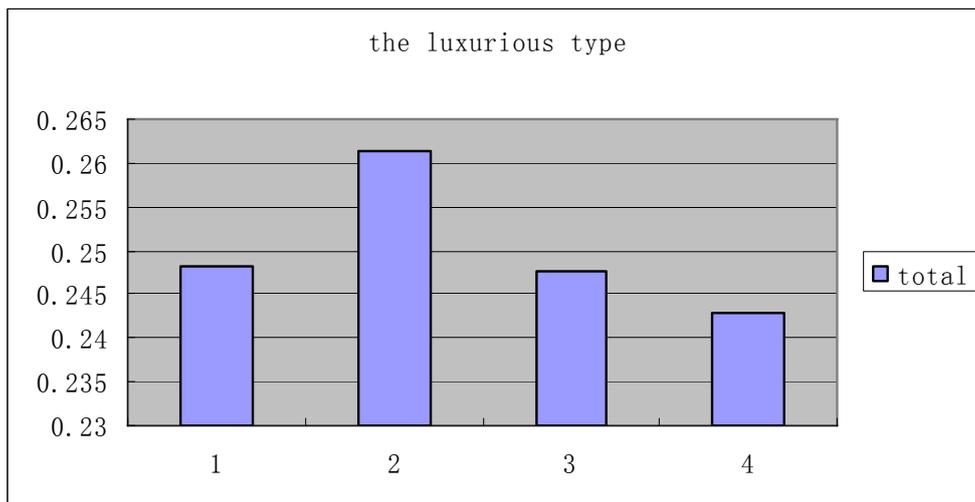


Fig.4. The tonal preference for the luxurious type of all subjects

### 3.1.4 The Environmentally Friendly Type

Besides the dominant percentage of rising tone, there is no distinctive preference difference among the other three.

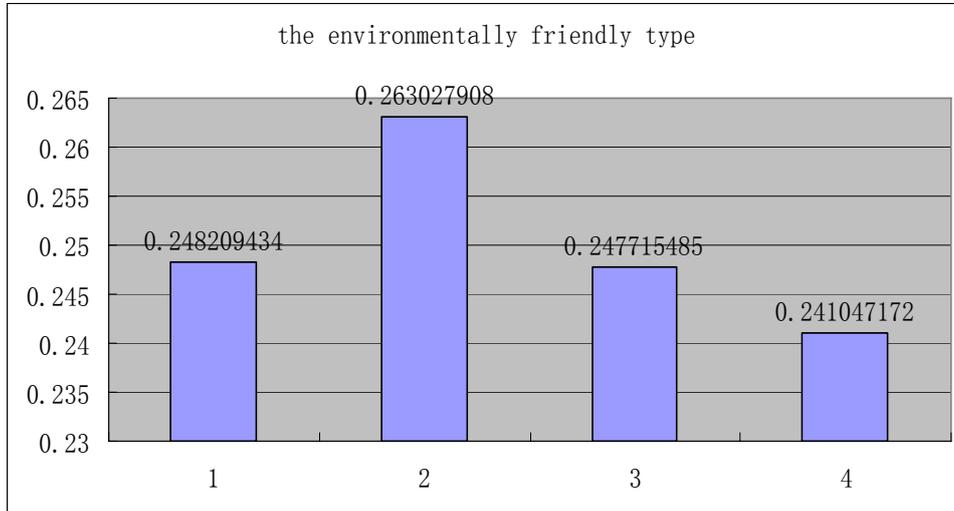


Fig.5. The tonal preference for the environmentally friendly cars

### 3.1.5 The Powerful Type

Preference the rising tone ( / ) and the falling tone( \ ) are both distinctive.

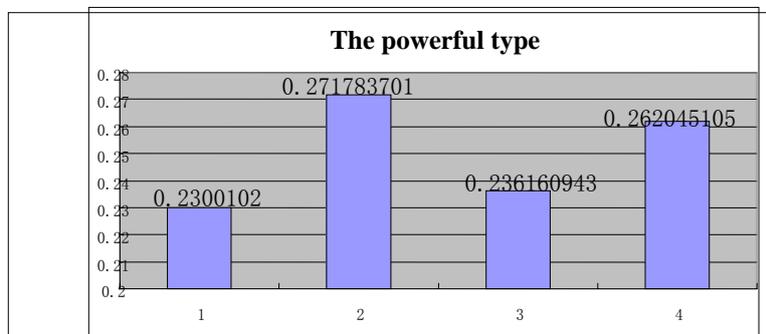


Fig.6. Tonal preference for the powerful cars

## 3.2 Discussion

The above results indicate that: a. the rising tone remains the dominant advantage over other tones for all the five types of cars, while the other three tones vary depending on different types of attributes; b. the high tones---the high tone (  $\bar{\quad}$  ) and the rising tone ( / ) take up the majority; c. the female subjects tend to prefer the high tone better than the rising tone for the safe and comfortable cars.

### 3.2.1 Rising Tone ( / ) Remains the highest value

The above figure shows that the value of other tones vary depending on the types of automobiles, but the rising tone always takes the highest value. And the value of the rising tone for the powerful cars

reaches the highest, being 27%.

### 3.2.2 The High Tones (ˊ) ( / ) Take Up slight higher value

The high tones (ˊ) ( / ), with the percentages of 53%, 52%, 52%, 52%, and 50.2% respectively, do take up more value than the low tones (ˋ) ( \ ), though the difference is slight.

### 3.2.3 Comparison between findings and those by Chan and Huang.

Generally speaking, this paper also shows that the high tones (ˊ) ( / ), are preferred, mostly in line with Chan and Huang's theory with a little exception.

In the case of the powerful cars, the high tones and the low tones almost share the same proportion, fifty to fifty, because the falling tone, which suggests fast and straight, takes a higher proportion of 26%. This result may reveal to some extent the limitations of Chan and Huang's theory in that they did not categorize products according to their specific attributes, but as a whole, which may lead to confusion sometimes.

### 3.2.4 Higher preference by Female on high tone (ˊ) in safe and comfortable cars over the rising tone ( / )

The figures show that the female subjects favor the high tone (ˊ) in the safe and comfortable, which is quite different from what they do in the other 4 types of cars and what the males do in all the five types where the rising tone is chosen dominant.

## 3.3 Findings

### Relatedness between Tonal Suggestiveness and product attributes in the category of cars

The high tone (ˊ), most favored by the female and the second favored by the male in the safe and comfortable, conveys a sense of safety and quietness. Also, it may indicate high social status because it comes the second favored in the luxurious and environmentally friendly cars.

The rising tone ( / ), favored in all the 5 types of cars, seems to be closely related to all the product attributes, and to be most related in the powerful type and fashionable type, which may suggest that the rising tone conveys a sense of fastness, fashion and passion.

The dipping tone (ˋ), favored in the luxurious and environmentally friendly like the high tone, seems to convey a sense of high social status.

The falling tone ( \ ), preferred in the fashionable and powerful, may convey a sense of power, passion and fastness.

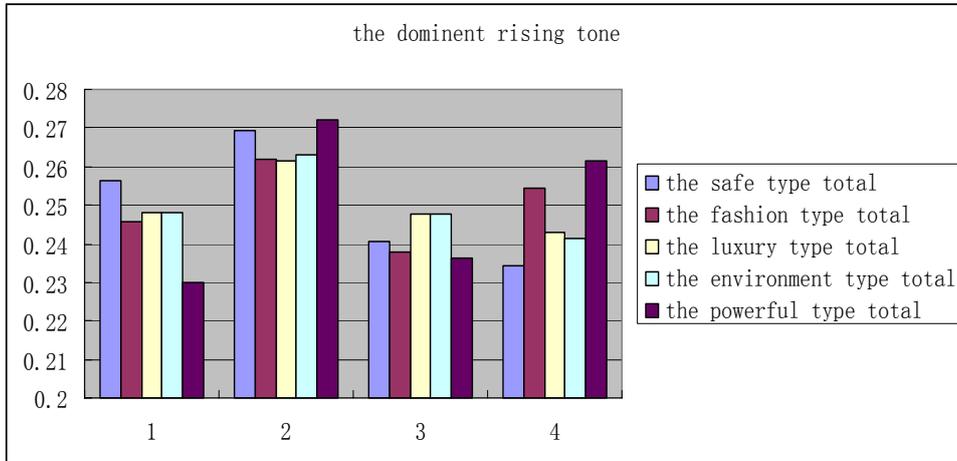


Fig.1 The dominant rising tone

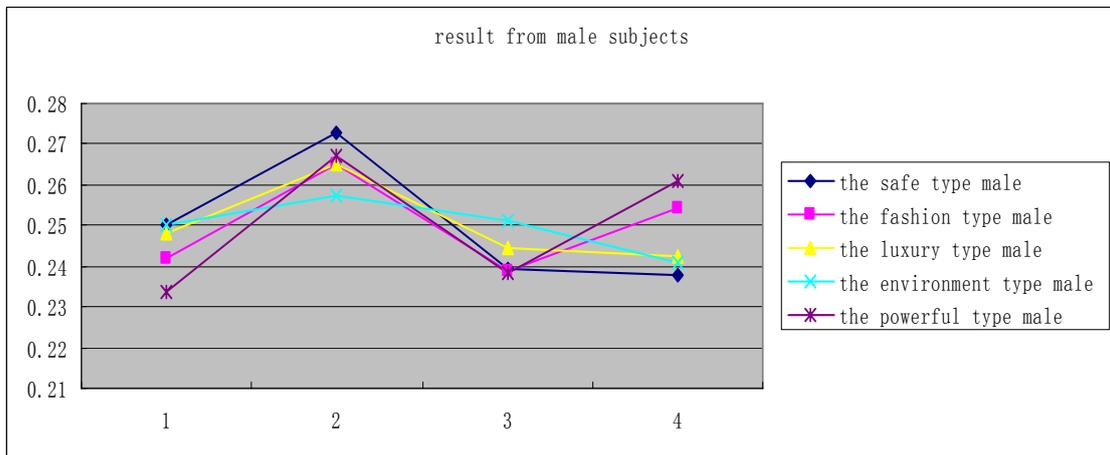


Fig.7. Tonal preference of male subjects for all the five types of automobiles

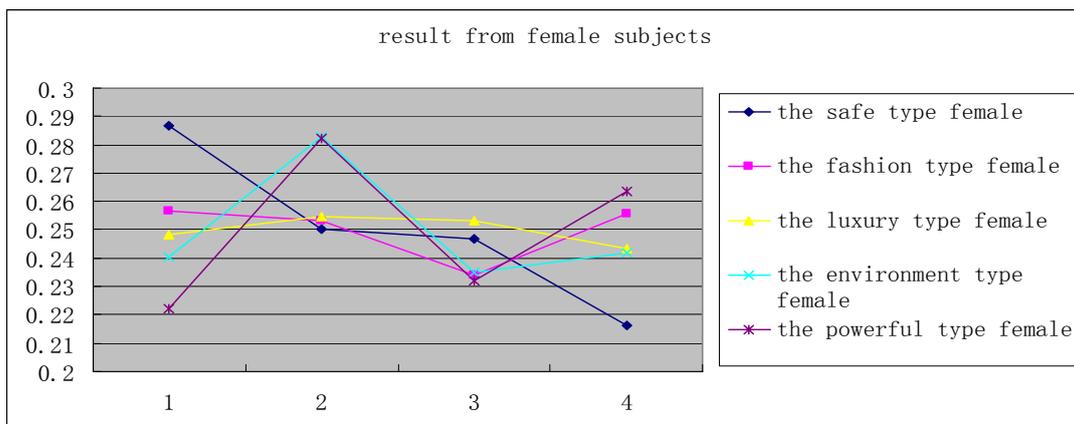


Fig.8. Tonal preference of female subjects for all the five types of automobiles

#### 4. CONCLUSION

It is proved in the paper by an experiment that there is relatedness between the tonal suggestiveness and the product attributes in the category of cars, and the tonal suggestiveness is summarized.

The findings in the paper may be a guide to the brand naming of cars both domestic and foreign in the Chinese market, and it also may be of some significance to the naming of other categories of product in Chinese market.

This paper is by no means a perfect one because the subjects are all college students, but not potential consumers of cars. Further studies in potential consumers and the difference between male and female are recommended, since the suggestiveness of Chinese tones does exist according to the result of this paper and might better reveal the product attribute if properly used in the brand names.

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